M.O. Form 2373

THE DAILY WEATHER REPORT

BRITISH SECTION

1st October to 31st December

1939

AIR MINISTRY, METEOROLOGICAL OFFICE,
LONDON, W.C.2

INTRODUCTION

The Daily Weather Report has been issued in three sections since April 1, 1919. The section of which this forms the Introduction is known as the " British Section."

NOTES REGARDING THE BRITISH SECTION.

Description of each issue :—The British section is issued daily by 12.30 p.m. (except that Sunday's issue is printed on Monday) and contains—

(*a*) On pp. 1 and 4 two tables of observations taken generally at 13h. and 18h. G.M.T. of " yesterday," and at 1h. and 7h. G.M.T. of " to-day " from about 45 stations in the British Isles, which regularly report to the Meteorological Office, and of the weather in the intervening intervals. These observations are telegraphed in a figure and letter code. The stations are arranged according to Forecast Districts as described at the foot of p. 2 of the report, and also on p. 4 of this Introduction. Whenever it is possible to do so without occupying too much space, the decoded values are set out in full in the table ; in other cases, code figures are entered ; these are interpreted by reference first to the number printed at the head of the column, and then to the Explanation printed at the foot of pp. 1 and 4, where the column numbers are shown in connexion with each of the separate classes of observation.

(*b*) Observations made at nine London Stations during the 24 hours ending 7h. or 9h.

(*c*) Table of atmospheric pollution for " yesterday " for South Kensington and Kew Observatory.

(*d*) Observations for " yesterday evening " and " this morning " from five capital cities on the Continent of Europe.

(*e*) On p. 2, a table of weather reports from British health resorts for the previous day, arranged under forecast districts.

(*f*) A weather chart (scale 1 : 10,000,000) for the British Isles and the neighbouring parts of the Continent and of the Atlantic. An explanation of the chart is printed below it.

(*g*) A " general inference " drawn up by the forecaster from all the weather charts available. This inference sets out the meteorological changes in progress and the deductions to be drawn from them.

(*h*) Weather forecasts for the 24 hours commencing 12 noon of the day of issue for 20 districts into which the British Isles are divided.

(*i*) A " further outlook," i.e., an indication of the changes to be expected after the expiry of the term of the forecasts, if the meteorological conditions are such as to warrant the issue of such an extension.

(*j*) On p. 3, a weather chart for the greater part of the Northern Hemisphere, including the whole of Europe, part of N. Africa, the Northern part of the N. Atlantic, N. America and usually a part of Russia in Asia.

The observations presented on this chart are not synchronous, but as from 1st January, 1938, a change was made which gives approximately synchronous observations over a larger area than formerly.

Till the end of December, 1937, the chart could be divided into the following three sectors as regards hour of observation.

Sector.	Hour of Observation.
U.S.S.R. (approx. 170° E. to 30° E.)	7h. local time.
30° E. to 40° W.	6h. or 7h. G.M.T. (Azores 8h.).
40° W. to 170° W.	oh. or 1h G.M.T.

From January 1st, 1938, these have been reduced to the two sectors :—

Sector.	Hour of Observation.
U.S.S.R. (approx. 170° E. to 30° E.).	1h. local time.
30° E. to 170° W.	oh. or 1h. G.M.T.

The improvement in the charts effected by this change is most marked over mid-Atlantic. Previously a difference of six hours had existed between observations from ships on opposite sides of the lines of longitude 40° W.

The gain in one respect has meant a sacrifice in another. The network of land stations in Europe and Africa making observations at 1h. is not so close as that of stations observing at 7h. This is particularly notable in Scandinavia, the Balkans and North Africa.

In the case of Iceland entries of weather, temperature and wind do not now appear on the chart, but pressure values at 1h. G.M.T. are available and are used in drawing the isobars.

Wind :—The force of the wind is indicated in each issue of the Report by figures on the Beaufort Scale. The equivalents between numbers of the Beaufort Scale and the indications of an anemometer when exposed at a height of 30 to 40 feet above the ground are set out at the foot of p. 2 of each issue. Stations where such anemometers are installed determine their Beaufort numbers from their anemometers. At stations where anemometers are not in use, the force of the wind is estimated by means of the specification set out below. All wind directions are " true " or geographical, as distinguished from " magnetic."

Gale Warnings :—A note regarding the meaning of gale warnings and the method of indicating in the Report to what districts warnings may have been issued is also shown below.

THE INTERNATIONAL AND UPPER AIR SECTIONS.

The other two sections of the Daily Weather Report are Royal quarto in size.

The International Section contains 4 pp. per day and is issued daily by 3.30 p.m., but the issues for Saturday and Sunday are made on Monday. The " International Section " contains information received from the Continent of Europe, the Mediterranean Basin, Iceland and the Azores, and from ships on the Atlantic, arranged as follows :—

(*a*) Two weather maps (Scale 1 : 20,000,000) for Europe, the Mediterranean and Eastern Atlantic for 18h. yesterday and 7h. to-day.

(*b*) Two inset maps (Scale 1 : 20,000,000) for Northwest Europe for 13h. yesterday and 1h. to-day.

(*c*) Table of meteorological observations taken at about 80 stations, mostly on the Continent of Europe (not for the British Isles).

(*d*) Table of meteorological observations received by Wireless Telegraphy from Ships on the Northern Atlantic.

This section is very useful to one who wishes to trace the passage of various weather systems, since the 4 charts for each 24 hours enable the reader to follow the course of events in detail. From 1st March, 1933, the positions of well-defined warm, cold and occluded fronts have been indicated on the weather maps.

Upper Air Section :—The third section, called the " Upper Air Section " consists of 2 pp. Royal quarto per day and the issue for " yesterday " is published immediately prior to the issue of the British Section for " to-day." It contains maps, diagrams and tables showing upper air currents, pressures and temperatures over the British Isles and the Continent of Europe.

THE BEAUFORT SCALE OF WIND FORCE

Beaufort Number.	Admiral Beaufort's General Description of Wind.	Specification for use on Land, based on observations made at British Land Stations.	Limits of Mean Velocities Statute Miles per Hour as recorded by well exposed anemometers about 40 feet above ground.
0	Calm	Calm ; smoke rising vertically	Less than 1
1	Light air ...	Direction of wind shown by smoke drift	1–3
2	Slight breeze ...	Wind felt on face ; leaves rustle	4–7
3	Gentle breeze...	Leaves and small twigs in constant motion ; wind extends light flag	8–12
4	Moderate breeze	Raises dust and loose paper ; small branches are moved ...	13–18
5	Fresh breeze ...	Small trees in leaf begin to sway ; crested wavelets on inland waters...	19–24
6	Strong breeze...	Large branches in motion ; whistling heard in telegraph wires	25–31
7	Moderate gale...	Whole trees in motion ; inconvenience felt when walking against wind	32–38
8	Fresh gale ...	Breaks twigs off trees ; generally impedes progress ...	39–46
9	Strong gale ...	Slight structural damage occurs (chimney pots and slates removed)	47–54
10	Whole gale ...	Seldom experienced inland ; trees uprooted...	55–63
11	Storm	Very rarely experienced ; accompanied by widespread damage	64–75
12	Hurricane ...	... ...	Above 75

GALE WARNINGS

The Meteorological Office issues warnings to ports and fishing stations of gales on or near the coasts of the British Isles. When one of these notices has been received at a station a black canvas cone is hoisted. The Signals remain hoisted after the receipt of a warning telegram until danger of a gale is passed.

The *North Cone* (point upwards) is hoisted for gales commencing from a Northerly point.

For gales commencing from East or West the North Cone will be hoisted if the gale is expected to change to a Northerly direction.

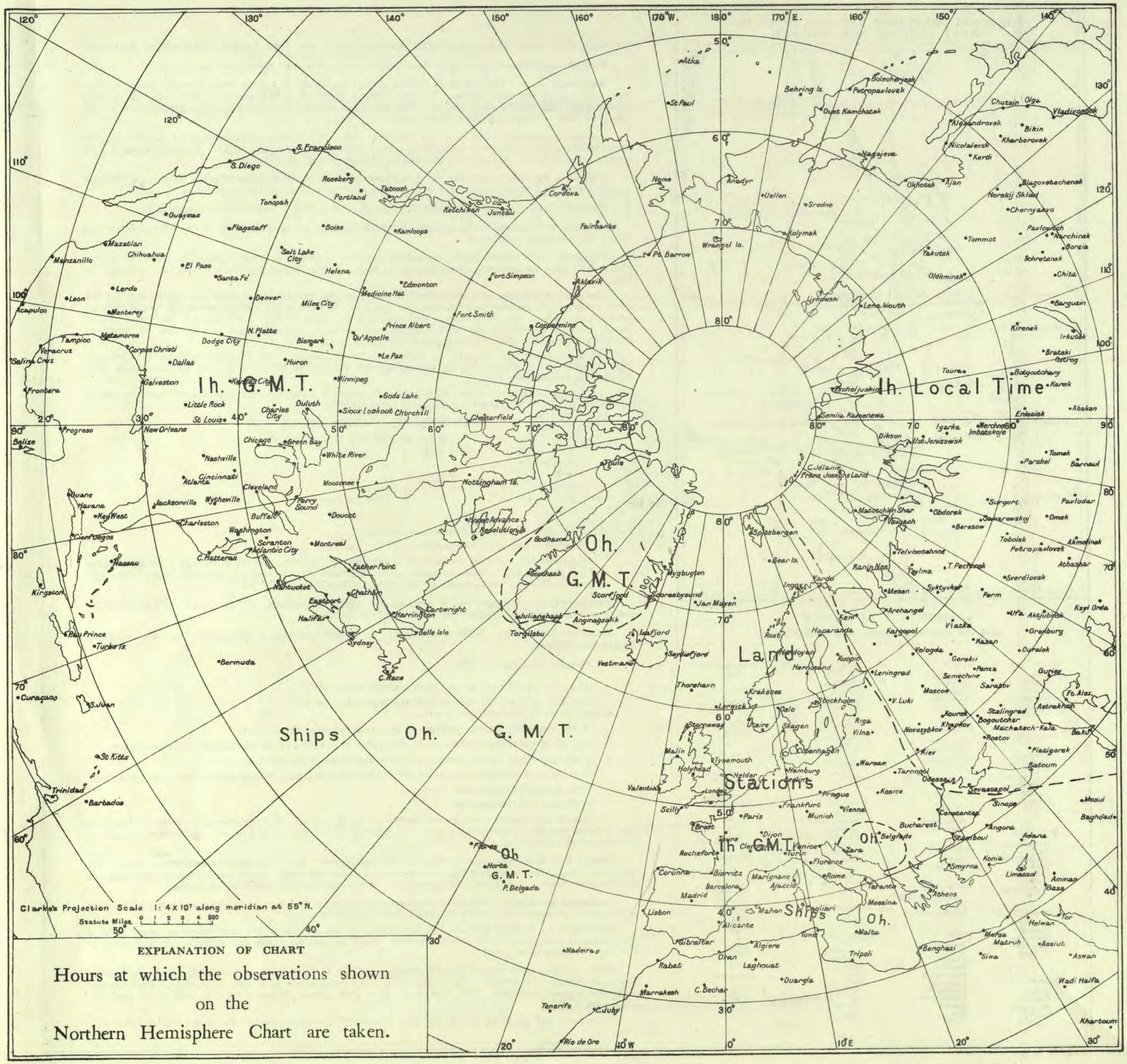
The *South Cone* (point downwards) is hoisted for gales commencing from a Southerly point. Such gales often veer, sometimes as far as Northwest.

For gales commencing from East or West the South Cone will be hoisted if the gale is expected to change to a Southerly direction.

The districts to which warnings are sent are shown in the Report by the following symbols written on page 2 against the forecast districts to which they apply :—

▲ North Cone hoisted : ▼ South Cone hoisted :

The time or times of issue of the gale warning telegrams is shown below the " further outlook " on page 2 of the Report.



EXPLANATION OF CHART

Hours at which the observations shown on the Northern Hemisphere Chart are taken.

FORECAST DISTRICTS AND STATIONS IN GREAT BRITAIN AND IRELAND

FORECAST DISTRICTS
and the Counties comprised within them

England, S.E.
Kent.
Sussex.
Surrey.
Hampshire.
Berkshire.
Wiltshire.

2. *England, E.*
Essex.
Middlesex.
Hertford.
Bedford.
Huntingdon
Cambridge.
Suffolk.
Norfolk.
Lincoln.

3. *Midlands, E.*
Buckingham.
Oxford.
Northampton.
Warwick.
Leicester.
Rutland.
Nottingham.

4. *Midlands, W.*
Gloucester.
Hereford.
Worcester.
Shropshire.
Stafford.

5. *England, S.W*
Dorset.
Somerset.
Monmouth.
Devon.
Cornwall.

6. *Wales, S.*
Glamorgan.
Brecknock.
Carmarthen.
Pembroke.
Cardigan.
Radnor.

7 *Wales, N.*
Montgomery.
Merioneth.
Flint.
Denbigh.
Carnarvon.
Anglesey.

8 *England, N.W*
Cheshire.
Lancashire.
Westmorland
Cumberland

9. *Midlands, N.*
Derby.
Yorkshire, W.

10. *England, N.E.*
Yorkshire, N. & E.
Durham.
Northumberland.

11. *Scotland, S.E.*
Roxburgh
Selkirk.
Peebles.
Berwick.
Haddington.
Edinburgh.
Linlithgow.
Clackmannan.
Kinross.
Fife.
Forfar.

12 *Scotland, S.W., and Isle of Man.*
Isle of Man.
Dumfries.
Kirkcudbright.
Wigtown.
Ayr.
Lanark.
Renfrew.
Dumbarton.
Stirling.

13A. *Scotland, W.*
Argyll.
Bute

13B. *Scotland, N.W.*
Hebrides.
Western parts of Inverness, Ross and Cromarty, Sutherland.
(Boundary line runs from Rannoch Station through Fort Augustus, Beauly and Lairg to Melvich.)

14. *Mid Scotland.*
Perth.

15. *Scotland, N.E.*
Kincardine.
Aberdeen.
Banff.
Elgin.
Nairn.
Caithness.
Eastern parts of Inverness, Ross, Sutherland.

16. *Orkneys and Shetlands.*

17. *Ireland, N.W.*
Galway.
Roscommon.
Mayo.
Sligo.
Leitrim.

18. *Ireland, N.E.*
Meath.
West Meath.
Longford.
Cavan.
Fermanagh.
Monaghan.
Louth.
Armagh.
Down.
Antrim.
Londonderry.
Tyrone.
Donegal.

19. *Ireland, S.E.*
Waterford.
Wexford.
Kilkenny.
Carlow.
Wicklow.
Offaly.
Leix.
Kildare
Dublin.

20 *Ireland, S.W.*
Cork.
Kerry.
Limerick.
Tipperary.
Clare

NOTES ON THE INFORMATION CONTAINED IN THE DAILY WEATHER REPORT

Standard of Time.—Greenwich Mean Time is exclusively used throughout the Report.

Stations.—*Kew.*—Temperature readings at Kew are taken in a large louvred screen placed against the north wall of the observatory. The thermometer bulbs are at a height of 10 feet above the ground immediately surrounding the building. This ground is raised a few feet above the general level of the Old Deer Park in which the observatory stands.

London Observations.—As from 1st January, 1934, the rainfall measurements at all the London stations where rain gauges are maintained, refer to two periods, day and night. The day period at Kew and Croydon is 7h. to 18h. G.M.T. ; at all other stations it is 9h. to 18h. G.M.T.

Valentia.—The observations at 1h. G.M.T. are taken at the Post Office Wireless Station on Valentia Island, those at all other hours at the Observatory near Cahirciveen on the mainland.

Point of Ayre.—The first observations are made at 0030 G.M.T. instead of at 0100 G.M.T.

Heights of Stations.—The heights of British Stations above M.S.L. refer to the plot of ground on which the rain gauge is situated.

Pressure.—The distribution of barometric pressure at Mean Sea Level is shown by means of isobars which are drawn for intervals of 2 millibars on page 2 of the Report and for intervals of 4 millibars on Page 3.

The wind at a height of 1,500–2,000 feet above ground usually blows *along* the isobars and, for the same temperature, pressure and latitude, the speed of the wind is inversely proportional to the distance between the isobars, *e.g.*, for isobars 1 inch apart for the chart on Page 2 the speed of the upper wind is about 12 m.p.h. in latitude 55°, with a temperature of 50° F. and a pressure of 1,015 mb ; if, however, the isobars are ½ inch apart the corresponding speed is 24 m.p.h.

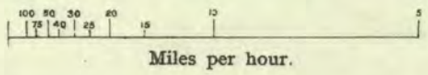
The scale below can be used to determine the theoretical wind as deduced from the pressure distribution on either chart. On the assumption that the path of the air is straight this theoretical wind is called the Geostrophic Wind.

If the distance between consecutive isobars is measured along the scale from the left-hand extremity the geostrophic wind is shown by the scale in miles per hour.

GEOSTROPHIC WIND SCALE FOR

8 mb isobars on $1 : 4 \times 10^7$ Charts.

or 2 mb ,, ,, $1 : 10^7$



Miles per hour.

This scale applies under the following conditions :—

Pressure, 1,015 mb. Temperature, 50° F. Latitude, 55°.

Corrections.—For an increase of 10 mb pressure, subtract 1% from velocity ; for an increase of 10° F. add 2%. From Latitude 55° to Latitude 65° subtract 1% for each degree *above* 55°. From Latitude 55° to Latitude 45° add 1½% for each degree *below* 55°.

Temperature.—Temperature is specified in degrees Fahrenheit, and is shown on the charts by means of figures written alongside the positions of the stations.

Relative Humidity.—Relative Humidity at British stations is calculated from the following hygrometric formulæ :—

$$\text{Relative humidity} = \frac{100x}{F}$$

$x = f - \cdot 444\ (t - t')$ for wet bulb readings above 32° F.

$x = f - \cdot 400\ (t - t')$ for wet bulb readings below 32° F.

where x is the vapour pressure in mb.

F the saturation vapour pressure at the temperature of the dry bulb ;

For air temperatures below 32° F. the value of F used is that appropriate to an ice surface.

f the saturation vapour pressure at the temperature of the wet bulb ;

For wet bulb temperatures below 32° F. the value of f used is that appropriate to an ice surface.

t the dry bulb temperature ; and

t' the wet bulb temperature

The entries in columns 7 and 21 are limited to 10, 25, 35, etc., to 85, 92 and 97. Entry 10 indicates that relative humidity is between 0 and 19 : 25, between 20 and 29 ;.....and so on ; 92, between 90 and 94 ; 97 between 95 and 100.

Wind.—All wind directions specified in the reports are " true," as distinguished from " magnetic." The arrows indicating wind direction are drawn to fly with the wind. Each feather denotes two steps on the Beaufort Scale ; thus force 5 is indicated by two whole feathers and one half feather.

Adjusted Readings.—Where an instrumental reading is found to be in error and some adjustment is necessary, such adjusted reading is published in brackets thus (59).

The entries in the British Section of the Report for the stations in the main tables on pages 1 and 4 are compared with those in the returns received from the stations at the end of the month and errors in the Report so found are noted.

N.B.—Readers of the Report who are unacquainted with the method of construction and the use of weather charts are recommended to read " The Weather Map : An Introduction to Modern Meteorology," (2nd Edition, 1930), to be purchased from H.M. Stationery Office, York House, Kingsway, W.C.2, price 3s. 2d. post free. (Reprinted 1938.)

Corrections and additions can be obtained, if required, on application to the Meteorological Office.

H.M.S.O. Press, Cornwall House, S.E.1

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AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

MONTHLY SUPPLEMENT, DECEMBER 1939. No 276.

Dry and cold; wintry at the close.

The general characteristics of the month were determined by the dry, cold weather which set in on 11th and persisted without much break for the rest of the month. In the first ten days conditions were mild and unsettled as in November, and this mitigated the average conditions for the month as a whole. Gales were frequent in this early period, but not of outstanding severity.

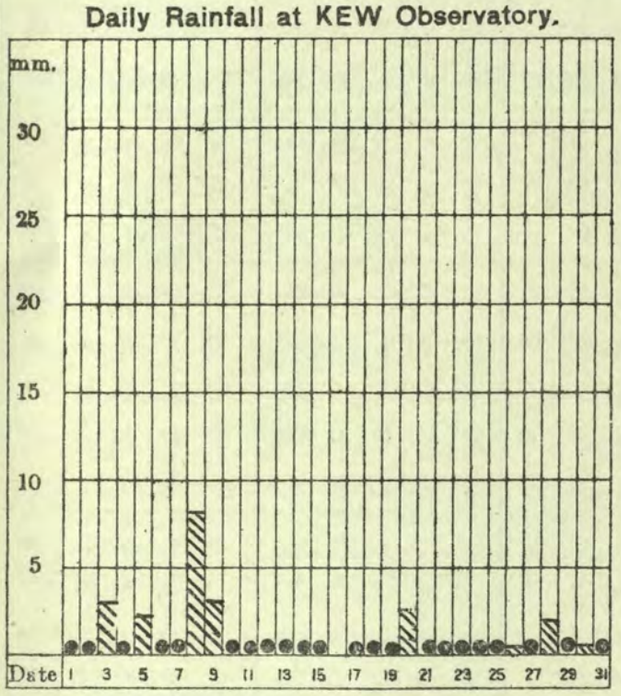
A complete change occurred on 11th which altered the whole character of the month. An anticyclone over Finland (which had originally developed from a wedge moving east) moved westward to Scandinavia and became intense extending its influence over Britain. A period of dull, rather cold weather followed, and in many districts the sun was hardly seen from 11th to 20th. By that time the Scandinavian high had disappeared, and a new anticyclone moved SE from East Greenland reaching South-east Europe on 22nd, and a ridge of high pressure extending from it became established over Southern England. On the night of 21st to 22nd the first really sharp frost of the season occurred in Southern England with a screen minimum of 17° at Farnborough. Fog commenced locally that night and became widespread on the following night, and persisted for three days in some areas without appreciable clearance, causing considerable dislocation of the heavy Christmas traffic, both on land and in the Channel. The London and Southampton areas were specially badly affected, while some places not far away had abundant sunshine. In the north this period was mild and mainly dry.

Another anticyclone spreading from East Greenland brought a fresh outbreak of arctic air and by 27th there was widespread frost, and also snow showers in the north and extreme east. On 28th a small depression moved from Northern Ireland to Dorset and snow fell to N.E. of the track of the centre, in a belt about 70 miles wide, becoming wider in the extreme south in the evening and covering Kent.

A small anticyclone followed it with severe frost, the screen temperature falling to 8° F. at Manchester on the night of 28th to 29th, and also at Kew and Farnborough on the night of 29th to 30th. At Manchester the maximum on 29th was only 19° F.

Sunshine was mostly deficient, and the total of only 9 hours at Renfrew was easily the lowest ever recorded there in any month.

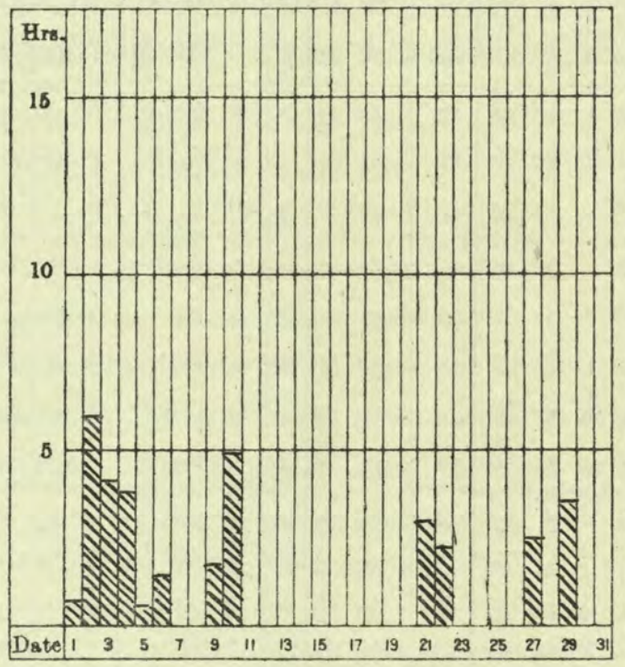
Daily Rainfall at KEW Observatory.



● = Less than 0·5 mm.

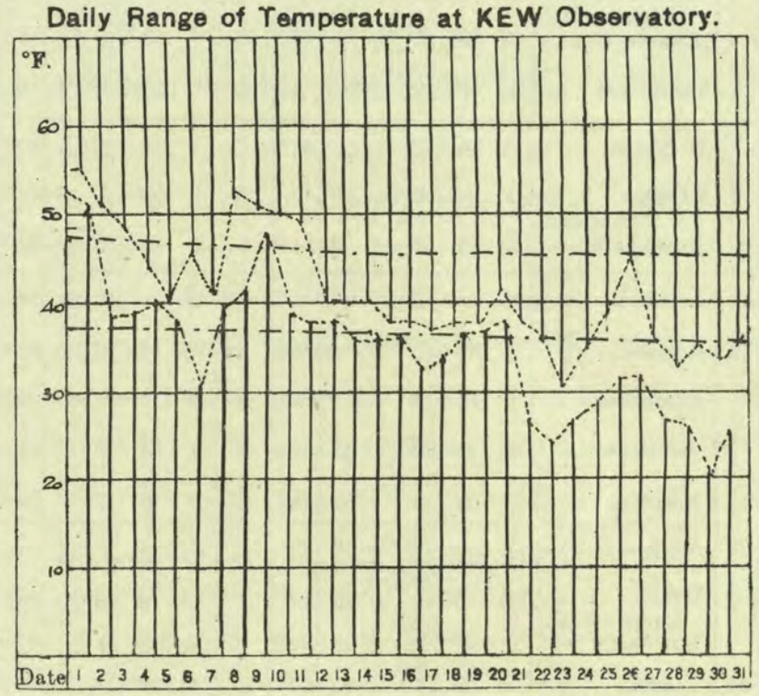
RAINFALL. Total for Month. 21 mm.

Daily Sunshine at KEW Observatory



SUNSHINE. Total for Month. 35 hrs.

Daily Range of Temperature at KEW Observatory.



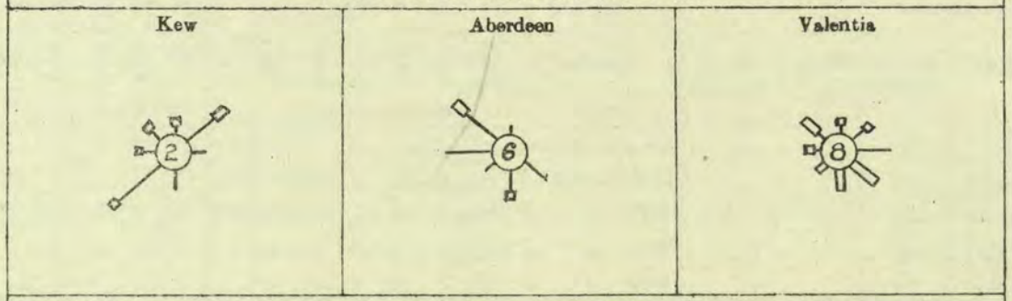
TEMPERATURE. The pecked curves indicate the maximum temperature recorded each day, and the minimum temperature each night throughout the month. The chain lines show normal values.

MEAN VALUES FOR THE MONTH.*

Stations.	Pressure Mean	Pressure Difference from average	Temperature Mean	Temperature Difference from average
	mb.	mb.	°F.	°F.
Kew	1016.6	+2.9	38.2	−3.2
Aberdeen	1013.9	+7.0	39.3	−0.8
Valentia	1016.8	+6.1	42.9	−3.2

*Pressure—The mean is for the 24 hours. It is derived from values at 7 h. and 18 h. duly corrected.
Temperature—mean of Max. and Min.

WIND FREQUENCIES AT 7 hr.



Forces 1–3 ——; forces 4–7 ═══; force 8 or above ▬. Scale; 10 mm. to 10 observations.
The figure in the centre of the circle gives the number of calms.

"RUN" of WIND, or total displacement of air relative to the anemographs.

	miles.
Kew ...	5387
Aberdeen ...	5322
Lerwick ...	15552
Valentia ...	3038

SUMMARY OF RECORDS OF TEMPERATURE, LOW CLOUD, VISIBILITY,

District.	Stations.	† TEMPERATURE. Number of daily readings within fixed limits. Maximum. 32° or below	33° — 41°	42° — 50°	51° — 59°	60° — 69°	Average Maximum.	Minimum. 23° or below	24° — 32°	33° — 41°	42° — 50°	51° — 59°	Average Minimum.	Extremes—Warmest and Coldest. Days. Highest Max.	Date.	Lowest Max.	Date.	Nights. Highest Min.	Date.	Lowest Min.	Date.	Number of Ground Frosts.
							°F.						°F.	°F.		°F.		°F.		°F.		
1	London ... (Kew Obsy).	1	19	7	4	0	44.8	1	10	16	2	2	38.0	55	1	31	23	53	1	20	30	13
	Croydon ...	4	16	6	5	0	44.4	4	8	15	2	2	37.5	54	1	28	23	53	1	17	30	10
	Calshot** ... (Southampton)	0	16	10	5	0	46.2	1	9	15	5	1	38.9	55	1	33	23	53	1	23	30	11
	Lympne ...	1	16	10	4	0	43.4	3	11	12	4	1	36.3	53	1	30	28	52	1	20	30	14
2	Shoeburyness ...	2	15	9	5	0	44.7	0	11	16	2	2	36.1	57	1	31	23	54	1	25	22, 23, 23, 30	12
	Gorleston ...	2	17	9	3	0	44.1	2	10	15	3	1	37.6	56	1	30	27	53	2	21	30	10
	Cranwell ...	0	19	10	2	0	42.7	0	8	20	3	0	35.2	57	1	33	28	48	2	23	30	10
3	Birmingham ... (Edgbaston)	2	17	9	3	0	42.6	0	7	20	4	0	36.3	55	1	32	28, 29	53	1	24	29	12
4	Ross-on-Wye ...	0	17	10	4	0	44.7	3	8	15	4	1	37.3	53	1	34	28	53	1	20	30	15
5	The Lizard ...	0	4	20	7	0	*	0	1	20	8	2	*	54	1, 2, 9	38	17	52	1, 8	32	29	*
7	Holyhead ...	0	5	23	3	0	46.3	0	1	19	10	1	42.5	54	1	40	13, 18	53	1	32	29	2
8	Chester ... (Sealand)	1	14	12	3	1	45.2	3	7	15	6	0	37.1	60	1	26	29	49	1	18	29	13
10	Tynemouth ...	0	13	17	1	0	44.4	0	5	18	8	0	38.4	58	1	34	29	47	2, 11	27	31	8
11	Leuchars ...	0	14	16	1	0	43.5	1	8	18	4	0	35.6	55	1	34	18	47	2	23	19	12
12	Renfrew ...	1	15	13	2	0	43.6	2	9	14	6	0	35.8	56	1	31	19	46	10	18	29	12
	Eskdalemuir ...	1	19	10	1	0	40.7	4	9	15	3	0	33.5	56	1	27	29	43	10	17	19	15
13B	Stornoway	0	5	26	0	0	44.9	0	3	13	15	0	38.5	50	8, 24	35	27	48	24	30	29	*
15	Aberdeen ..	0	15	15	1	0	43.4	2	7	15	7	0	36.3	51	24	33	27, 28	47	11, 25	23	18, 19	14
18	Aldergrove ...	1	12	16	2	0	*	1	10	16	4	0	*	55	1	31	29	45	11	20	29	15
19	Dublin ... (Phœnix Park)	0	10	17	4	0	47.1	1	14	13	3	0	36.0	57	1, 9	36	29	50	1	20	29	15
	Birr Castle ...	3	10	15	3	0	45.8	3	12	12	3	1	37.8	57	1, 9	29	25	54	1	21	23, 29	14
20	Valentia ... (Cahirciveen)	0	3	21	7	0	49.1	0	7	9	14	1	43.0	56	1	38	19	55	1	26	24	11

District.	Stations.	LOW CLOUD. Number of observations within fixed limits. 7 h. Below 1,000 ft.	1,000–5,000 ft.	5,000–8,000 ft.	13 h. Below 1,000 ft.	1,000–5,000 ft.	5,000–8,000 ft.	18 h. Below 1,000 ft.	1,000–5,000 ft.	5,000–8,000 ft.	FOG, MIST and GOOD VISIBILITY. Number of observations within fixed limits. 7 h. Dense fog.	Thick fog.	Fog.	Mist.	Good Visibility.	13 h. Dense fog.	Thick fog.	Fog.	Mist.	Good Visibility.
1	London ... (Kew Obsy).	5	22	0	4	23	0	5	22	0	0	5	1	1	5	0	3	6	6	3
	Croydon ...	6	19	0	8	19	0	3	16	0	1	2	1	3	3	3	0	6	8	3
	Calshot** ... (Southampton)	7	19	1	8	17	0	8	16	0	0	3	2	4	4	0	2	1	4	7
	Lympne ...	6	17	1	5	20	1	8	14	0	0	4	2	0	11	0	0	1	1	15
2	Shoeburyness ...	5	16	0	6	15	1	4	16	0	0	3	3	4	10	1	1	4	4	9
	Gorleston ...	2	25	0	1	25	0	0	26	0	0	3	1	1	7	0	2	1	3	7
	Cranwell ...	3	20	2	5	20	2	3	22	0	1	2	3	5	4	0	0	2	4	8
3	Birmingham ... (Edgbaston)	3	20	0	5	19	0	7	17	0	0	0	2	8	5	0	0	7	6	3
4	Ross-on-Wye ...	8	17	0	8	19	0	10	17	0	0	1	3	3	11	0	1	1	4	12
5	The Lizard ...	1	29	0	1	30	0	3	28	0	0	0	1	2	25	0	0	2	1	25
7	Holyhead ...	2	27	2	5	26	0	3	25	1	0	0	0	0	23	0	0	0	1	18
8	Chester ... (Sealand)	3	25	0	2	27	0	1	28	0	0	2	2	7	2	0	0	2	4	11
10	Tynemouth ...	0	31	0	0	31	0	0	31	0	0	0	0	1	10	0	0	4	1	9
11	Leuchars ...	0	26	3	1	26	2	1	21	6	0	0	0	0	21	0	0	0	1	19
12	Renfrew ...	2	23	1	5	24	0	5	25	0	0	2	6	2	7	0	0	3	4	8
	Eskdalemuir ...	12	16	0	7	21	0	10	17	0	0	0	0	1	21	0	0	0	0	21
13B	Stornoway	0	31	0	1	30	0	0	31	0	0	0	0	0	22	0	0	0	0	24
15	Aberdeen ..	1	27	2	3	25	1	8	19	0	0	0	0	0	10	0	0	1	1	11
18	Aldergrove ...	4	22	0	6	20	1	3	22	2	0	1	0	1	12	0	1	1	1	9
19	Dublin ... (Phœnix Park)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Birr Castle ...	0	25	0	2	28	0	0	22	0	0	0	2	0	29	0	0	2	0	29
20	Valentia ... (Cahirciveen)	1	25	0	3	25	1	2	24	1	0	0	0	0	25	0	0	0	0	29

UPPER AIR TEMPERATURE.

Pressure. mb.	Normal Height. Feet.	Mildenhall. Normal Temp. °F.	Mean. °F.	No. of Reports.	Aldergrove. Mean. °F.	No. of Reports.	Mean. °F.	No. of Reports.
950	1730	37.6	36.3	62	39.1	62		
850	4640	31.1	27.6	62	30.9	62		
750	7870	22.7	22.8	62	24.0	62		
650	11430	11.3	10.6	62	13.4	62		
550	15620	-3.2	-3.7	62	-0.7	62		

UPPER WINDS.

No. of records of Velocity (km./hr.) within fixed limits.

Station Height. Metres.	Lympne. *No. of Obs.	6 to 25	26 to 50	51 to 75	76 to 100	Above 100	Plymouth (Mt. Batten). *No. of Obs.	6 to 25	26 to 50	51 to 75	76 to 100	Above 100	Holyhead. *No. of Obs.	6 to 25	26 to 50	51 to 75	76 to 100	Above 100	Renfrew. *No. of Obs.	6 to 25	26 to 50	51 to 75	76 to 100	Above 100	Station. Height. Metres.
		kilometres per hour.						kilometres per hour.						kilometres per hour.						kilometres per hour.					
500 above ground.	36	25	43	13	1	0	71	21	39	11	0	0	23	11	7	4	0	0	36	20	16	0	0	0	500 above ground.
1000 above M.S.L.	56	18	23	9	2	0	49	13	26	4	3	0	14	9	4	1	0	0	15	6	8	1	0	0	1000 above M.S.L.
2000 " "	32	18	8	4	0	0	19	14	2	2	0	0	2	2	0	0	0	0	6	3	2	1	0	0	2000 " "
3000 " "	16	8	5	3	0	0	11	7	3	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	3000 " "
4000 " "	6	2	2	1	0	0	3	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4000 " "

† The readings and averages used, are, except in the case of Phœnix Park, the maximum for the period 7 h.–18 h., and the minimum for the period 18 h.–7 h. The readings and averages for Phœnix Park are for daily periods ending 21 h. Averages are for periods of at least 10 years (See M.O.364).

* Winds of 0—5 km./hr. are included in the number of observations.

METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON, W.C.2.
N. K. JOHNSON, D.Sc., A.R.C.S., Director.

SUNSHINE, RAINFALL, AND HUMIDITY — DECEMBER — 1939.

District.	Stations.	Sunshine. Number of Days with Duration. Nil.	0·1—3h.	3·1—6h.	6·1—9h.	Above 9h.	Maximum Duration. Hours.	Date.	Total for past 12 months. Hours.	Difference from average. Hours.	Total for Month. Hours.	Difference from average. Hours.	Highest and Lowest Totals on record for Month. First year of record.	Highest. Hrs.	Year.	Lowest. Hrs.	Year.	Rainfall. ‡Number of days with amount. 0, trace or 0·1 mm.	0·2—1 mm.	1·1—5 mm.	5·1—15 mm.	15·1—25 mm.	Above 25 mm.	Maximum fall in 24 hrs. mm.	Date.	Total for past 12 months. mm.	Difference from Average. mm.	Total for Month.‡ mm.	Difference from Average. mm.	Highest and Lowest Totals on record for Month. First year of record.	Highest. mm.	Year.	Lowest. mm.	Year.	Days with Thunder.	Days with Snow or Sleet.
1	London ... (Kew Obsy).	15	7	5	0	0	6.0	2	1515	+46	35	−2	1880	72	1866	0	1890	18	9	3	1	0	0	8	8	668	+82	21	−37	1856	162	1914	6	1926	0	2
	Croydon ...	20	6	5	0	0	5.9	21	1482	43	31	−7	1922	58	1929 1936	19	1930 1934	19	4	5	3	0	0	12	3	821	+142	39	−30	1921	174	1929	8	1926	0	2
	Calshot** ... (Southampton)	17	6	6	2	0	7.1	21	1705	−41	51	−7	1881	86	1886	21	1890	17	7	5	2	0	0	11	3	772	+126	39	−35	1871	251	1914	10	1926	0	1
	Lympne ...	12	8	11	0	0	5.9	24	1805	+40	66	+12	1921	85	1926	19	1934	13	10	5	3	0	0	13	8	950	+226	45	−37	1920	161	1929	12	1932	0	2
2	Shoeburyness ...	17	6	7	1	0	6.4	21	1663	−53	47	−2	1919	77	1936	20	1934	18	6	5	2	0	0	7	8	671	+168	27	−20	1920	94	1937	5	1932	1	3
	Gorleston ...	*	*	*	*	*	*	*	*	*	*	*	1908	67	1936	20	1934	16	6	8	0	1	0	20	8	763	+146	48	−14	1871	151	1914	12	1932	1	4
	Cranwell ...	14	7	10	0	0	5.9	6	1401	−137	53	+6	1921	62	1929	30	1934	20	5	1	4	0	0	13	5	659	+69	42	−14	1917	105	1938	9	1933	0	3
3	Birmingham ... (Edgbaston)	17	11	3	0	0	4.5	2	1217	−87	24	−11	1887	90	1891	5	1890	16	7	4	4	0	0	9	8	781	+107	42	−26	1893	155	1914	11	1926	0	5
4	Ross-on-Wye ...	15	9	5	2	0	6.6	6	1435	−50	49	+1	1915	73	1923	30	1915 1927	16	5	7	3	0	0	7	3	701	−16	37	−39	1859	136	1929	11	1926	0	2
5	Falmouth ... (Observatory)	14	8	6	3	0	7.0	6	1752	+42	57	+4	1881	82	1886	15	1890	14	5	6	5	1	0	24	7	1112	+5	87	−72	1871	280	1915	21	1926	0	0
7	Holyhead ...	14	12	5	0	0	5.7	6	1627	+77	37	−4	1914	71	1916	15	1931	20	2	4	4	1	0	17	8	855	−32	63	−43	1871	241	1934	21	1926	0	0
8	Chester ... (Sealand)	18	8	4	1	0	6.1	6	1395	+19	32	−9	1923	76	1929	23	1927	19	1	8	3	0	0	10	3	784	+123	45	−19	1922	114	1929	13	1933	0	2
10	Tynemouth ...	*	*	*	*	*	*	*	*	*	*	*	1935	*	*	*	*	15	7	6	3	0	0	13	8	703	+88	44	−11	1915	136	1937	15	1932	1	3
11	Leuchars ...	18	8	5	0	0	6.0	31	1366	−104	32	−12	1922	66	1929	16	1934	20	8	1	2	0	0	7	9	635	+42	21	−42	1922	95	1929	8	1926	0	0
12	Renfrew ...	27	2	2	0	0	3.1	5 22	1205	+12	9	−18	1921	46	1938	12	1927	15	7	6	1	2	0	23	28	587	+48	66	−47	1921	230	1929	15	1933	0	5
	Eskdalemuir ...	16	10	4	1	0	6.3	31	1186	−15	37	+5	1910	60	1935	3	1912	18	5	2	3	3	0	21	3	1457	+28	79	−39	1910	339	1932	37	1933	0	4
13B	Stornoway	21	9	1	0	0	4.2	6	1299	+84	19	−3	1881	54	1935	6	1884	7	3	19	2	0	0	12	9	1090	−176	75	−84	1870	378	1938	30	1927	0	2
15	Aberdeen ...	17	12	2	0	0	3.8	18	1256	−73	20	−17	1881	68	1891	7	1903	14	8	6	3	0	0	11	1	700	−48	42	−40	1871	227	1876	20	1905	0	4
18	Aldergrove ...	18	9	4	0	0	5.2	5	1304	*	31	*	1927	76	1935	21	1931	16	4	5	5	1	0	17	13	917	+79	77	−10	1926	145	1929	28	1926	0	3
19	Dublin ... (Phœnix Park)	14	14	3	0	0	5.6	2	1266	−171	25	−21	1881	79	1897	20	1910	18	3	8	1	1	0	18	13	757	+55	51	−14	1865	166	1914	19	1885	0	0
	Birr Castle ...	16	11	4	0	0	4.9	2	1293	−13	22	−21	1881	68	1881	22	1884	18	4	5	4	0	0	13	3	837	+10	56	−28	1862	165	1929	24	1885	0	1
20	Valentia ... (Cahirciveen)	6	15	7	3	0	6.3	25	1545	+175	66	+27	1880	76	1938	14	1931	15	7	3	7	1	0	17	8	1306	−108	112	−57	1866	345	1934	37	1926	0	0

MINIMUM SURFACE HUMIDITY.

No. of Days (Mdt. to Mdt.) with Minima between Fixed Limits.

Stations.	95 to 100 %	90 to 94 %	80 to 89 %	70 to 79 %	60 to 69 %	50 to 59 %	40 to 49 %	30 to 39 %	20 to 29 %	0 to 19 %
London (Kew)	2	2	7	13	5	2	0	0	0	0
Ross-on-Wye ...	1	3	9	13	4	1	0	0	0	0
Falmouth (Obsy.)										
Renfrew ...	1	3	11	14	2	0	0	0	0	0
Eskdalemuir ...	0	1	6	17	5	0	0	0	0	0
Aberdeen ...	0	1	4	16	9	1	0	0	0	0
Valentia ...	0	0	5	10	14	2	0	0	0	0

STATE OF GROUND AT 18 h.

No. of Days each type was recorded.

Stations.	0	1	2	3	4	5	6	7	8	9
London (Kew)	0	23	0	4	0	0	0	0	4	0
Ross-on-Wye	0	27	0	0	3	0	1	0	0	0
Renfrew ...	0	25	1	2	2	0	0	0	1	0
Eskdalemuir	0	20	2	5	3	1	0	0	0	0
Aberdeen ...	4	18	0	3	1	0	1	4	0	0
Valentia ...	5	23	0	1	0	3	0	0	0	0

CODE for State of Ground.

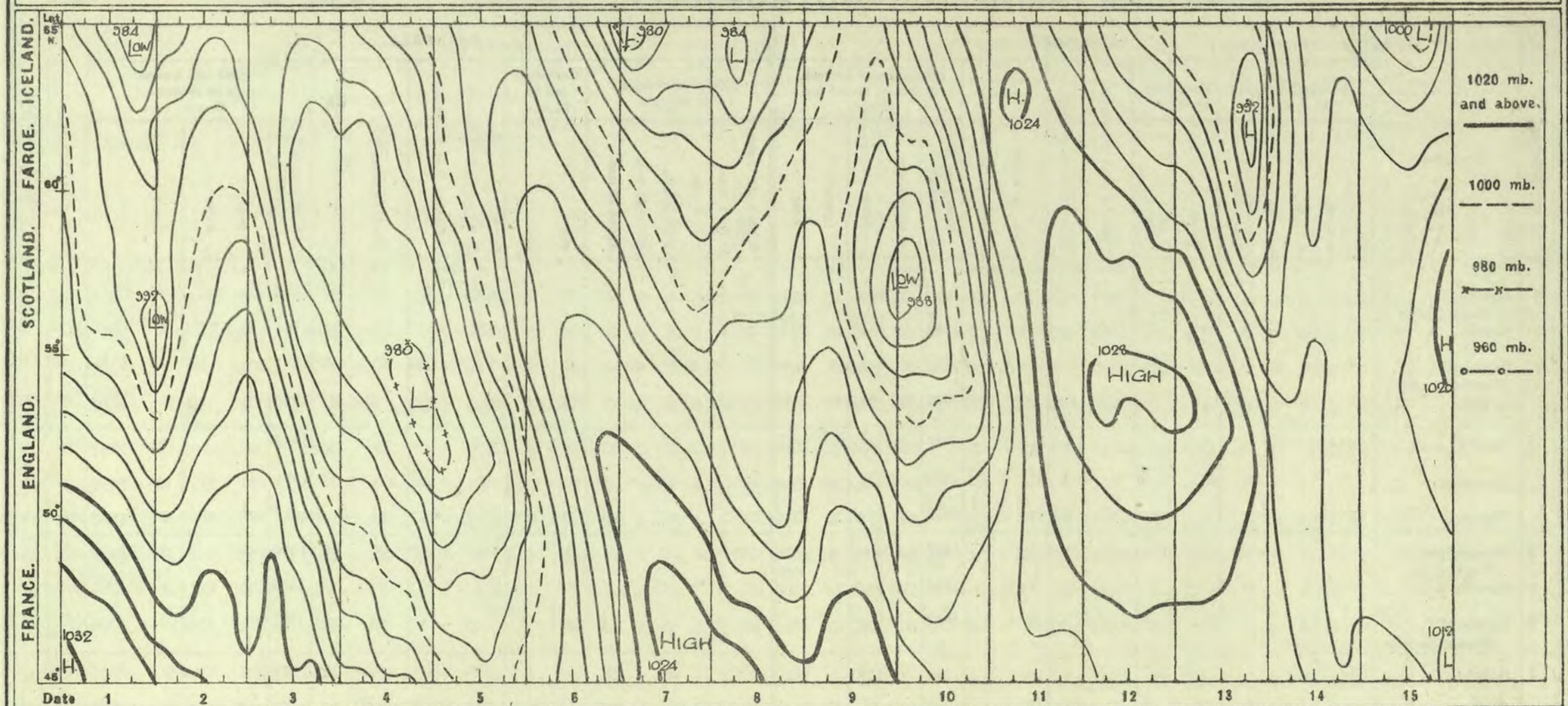
0 Dry.
1 Wet.
2 Flooded.
3 Frozen hard and dry.
4 Partly covered with snow or hail.
5 Covered with ice or glazed frost.
6 Covered with thawing snow.
7 Covered with snow, less than 6 ins., but ground not frozen.
8 Covered with snow, less than 6 ins., and ground frozen.
9 Covered with snow, greater than 6 ins. deep.

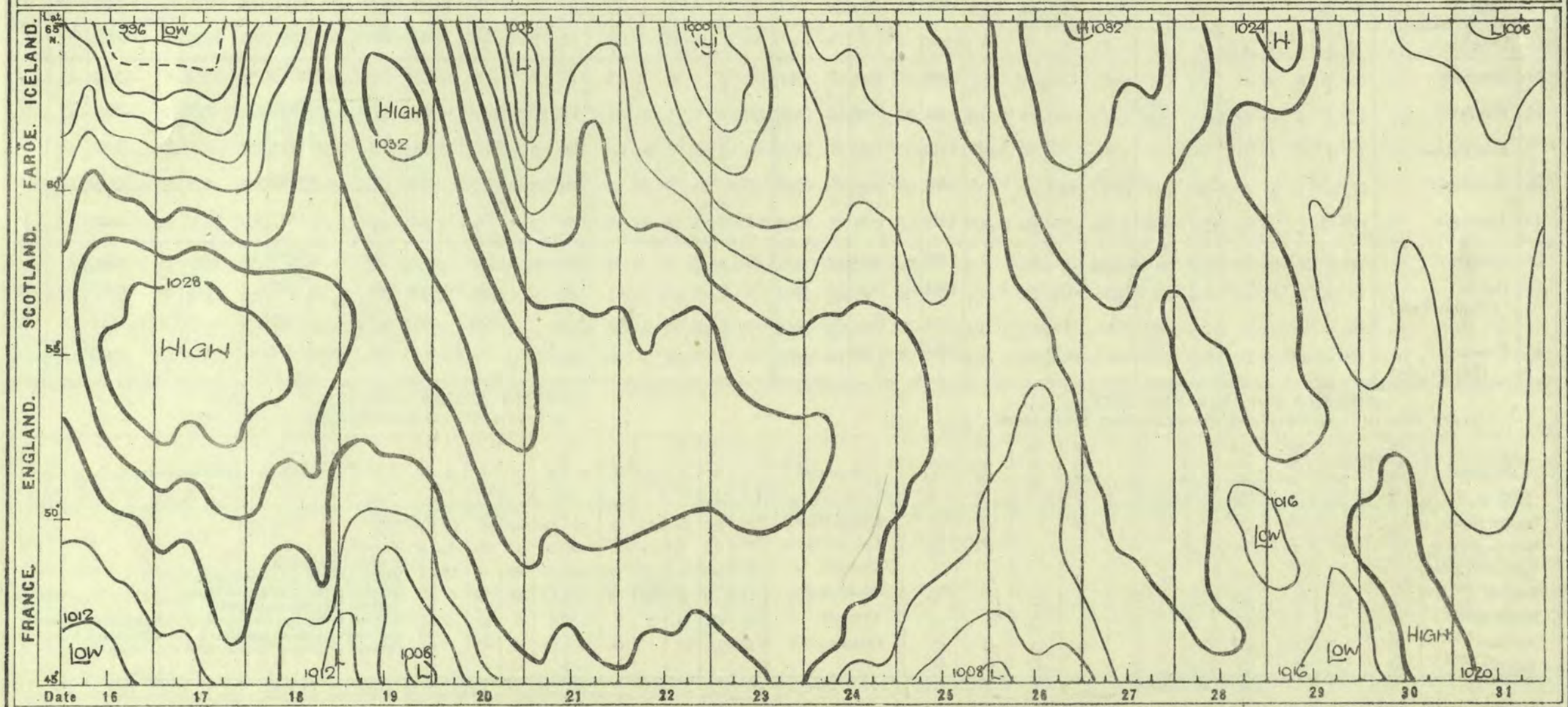
** The extremes of rainfall and sunshine from Calshot are supplemented by those from Southampton.

‡ Based in part on reports made by telegraph in which the day and night measurements are rounded off to the nearest whole millimetre. Small discrepancies may arise between these totals and those given in the Monthly Weather Report which are based on readings taken to 0·1 mm.

PRESSURE: ICELAND TO GULF OF LIONS ..... DECEMBER ..... 1939.

ISOPLETHS BASED ON SIX-HOURLY OBSERVATIONS.





* The diagram is obtained by drawing a line from Akureyri in Iceland to the south of France near Marseilles. The points at which the isobars drawn for 4 mb. pressure intervals intersect this line at 1h., 7h., 13h., and 18h. are plotted consecutively and joined to shew the variation of pressure from day to day at any point in the line. The line terminates at Lat. 66° N., Long. 18° W., in the north; at Lat. 44½° N., Long. 4° E., in the south.

H.M.S.O. Press, Cornwall House, S.E.1.

G.635/3909 We.8038. D.4805. 8p. 949. S.10. 1/40

METEOROLOGICAL OFFICE - AIR MINISTRY.

DAILY WEATHER REPORT - BRITISH SECTION.

Explanation of code letters used in the table of abridged observations published on page 2 and not given on pp.1 and 4 of the Report.

==========

ww = Present weather according to following specification :-

00 = b	25 = */pr	50 = d	75 = iS
01 = bc	26 = */ps	51 = id_o	76 = SS
02 = c	27 = */ph(r)	52 = d_od_o	77 = sf
03 = 0	28 = */tlr_o	53 = id	78 = sh
04 = f_s or f_g	29 = */TLR	54 = dd	79 = ice crystals
05 = z_o	30 = kz	55 = iD	80 = pr
06 = Dust devils seen	31 = kz-	56 = DD	81 = pr_o,pr
07 = l	32 = kz	57 = df	82 = PR
08 = m or z	33 = kz+	58 = d_or,dr	83 = ps_o,ps
09 = *jf	34 = kzz	59 = Dr	84 = PS
10 = *jp	35 = ks	60 = r	85 = prs_o,prs
11 = t	36 = k/s_o	61 = ir_o	86 = PRS
12 = *jkz	37 = k/S	62 = r_or_o	87 = psh
13 = u	38 = s_o/k	63 = ir	88 = ph (r) $ph_o(r_o)$
14 = q	39 = S/k	64 = rr	89 = PH(R)
15 = Heavy squalls in last 3 hrs.	40 = f,F.	65 = iR	90 = tlr
16 = Waterspouts " " 3 "	41 = */f	66 = RR	91 = r/tlr
17 = Visibility reduced by smoke etc.	42 = */F	67 = rf	92 = s(rs)/ tlr
18 = Dust storm, vis > 1 Km.	43 = *f-,*F-	68 = r_os_o,rs	93 = $tlr_o(s_o)$
19 = Signs of tropical storm.	44 = f-,F-	69 = RS	94 = tlh_o
20 = */r,d,h,s or rs	45 = *f,*F	70 = s,rs	95 = tlr(s)
21 = */d	46 = f,F.	71 = iso	96 = tlh
22 = */r	47 = *f+or*F+	72 = soso	97 = TLR(S)
23 = */s	48 = f+ or F+	73 = is	98 = tlkz
24 = */rs	49 = if, iF.	74 = ss	99 = TLH

NOTES:- (1) The letters in the above table have the significance given at the foot of page (1) of the Report.
(2) An asterisk (*) refers to the state of the sky (b,bc,c or 0) as shown by the total amount of cloud, N.

W = Past Weather

0 = Fair (clear or slightly clouded)
1 = Variable sky.
2 = Mainly overcast.
3 = Sandstorm or duststorm or storm of drifting snow.
4 = Fog or thick dust haze (visibility less than 1,100 yards).
5 = Drizzle.
6 = Rain.
7 = Snow or sleet.
8 = Showers
9 = Thunderstorm.

h = Height of Base of Cloud.

0 =	0	-	150 feet
1 =	150	-	300 feet
2 =	300	-	600 feet
3 =	600	-	1000 feet
4 =	1,000	-	2000 feet
5 =	2,000	-	3000 feet
6 =	3,000	-	5000 feet
7 =	5,000	-	6500 feet
8 =	6,500	-	8000 feet
9 =	above 8000 feet.		

N_h indicates the amount of cloud at height h ; N indicates the total amount of all forms of cloud.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Friday 1st December 1939.

No 28,498

OBSERVATIONS at 13h. G.M.T. 30th November

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Amount Low 0–10 (12)	Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1021.0	+2	WSW	2	d$_o$d$_o$	55	97	4	5	–	–	10	10	1500
	Croydon	1020.9	+6	W'S	2	dd	56	97	5	6	2	–	9	10	800
	S. Farnborough	1021.2	+10	SW'S	3	d$_o$d$_o$	56	97	6	5	2	–	9	10	450
	Boscombe Down	1021.2	+8	WSW	4	dd	56	92	5	5	–	–	10	10	800
	Calshot (Soton.)	1021.7	+6	WSW	4	id$_o$	55	97	5	5	–	–	10	10	800
	Lympne	1021.2	+4	W'S	4	o/d	54	97	6	5	–	–	10	10	220
	Manston	1020.7	+6	W'S	4	d$_o$d$_o$	56	97	6	5	–	–	10	10	450
2	Shoeburyness	1020.2	+2	SW'W	2	m	58	92	4	5	–	–	10	10	800
	Felixstowe	1019.4	+18	NW	2	c/r	54	85	7	6	7	–	9+	10	1500
	Gorleston	1018.6	+16	WNW	3	c/r	54	65	6	5	–	–	9	9	2500
	Mildenhall	1019.7	+10	W	2	c	53	75	7	5	2	–	2-3	10	5700
	Cranwell	1019.2	+10	W'S	2	z$_o$	51	85	6	5	7	–	4-6	10	4000
3	Birmingham	1019.5	+8	SSW	1	of+	51	85	3	5	–	–	10	10	1500
	Upper Heyford	1020.3	+2	–	0	d$_o$d$_o$	52	97	6	6	2	–	9	10	450
4	Ross-on-Wye	1019.3	+6	SSW	2	o	55	92	6	6	–	–	10	10	1500
5	Hartland Point	1019.7	−2	WSW	6	df	54	97	3	–	–	–	10	10	<150
	Bristol	1021.2	+6	W'S	4	dd	55	97	5	6	2	–	9	10	450
	Portland Bill	1022.5	−4	WSW	6	o	55	92	2	5	–	–	10	10	1500
	Plymouth	1023.3	+6	W'S	4	d$_o$d$_o$	55	97	4	5	–	–	10	10	450
	The Lizard	1024.1	−4	WSW	6	df	54	97	3	5	–	–	10	10	1500
	Scilly (St. Mary's)	1023.8	+4	SW'W	5	o	54	97	6	5	–	–	10	10	1500
	Guernsey	1025.0	+2	WSW	5	dd	56	97	6	5	–	–	10	10	450
6	Pembroke	1019.3	+6	W	6	d	54	97	4	5	–	–	10	10	800
7	Holyhead	1018.1	+2	S'W	2	c/r	52	75	7	5	2	–	1	10	2500
	Chester (Sealand)	1019.0	+2	–	0	c	53	75	7	5	7	–	4-6	9+	4000
8	Manchester	1019.2	+10	W	2	z$_o$	50	85	6	5	7	–	2-3	10	4000
10	Spurn Head	1018.2	+12	WNW	3	c	49	85	5	5	–	–	9+	9+	4000
	Catterick	1017.6	+8	SE	1	c	48	75	7	4	5	9	1	9	2500
	Tynemouth	1016.4	+14	W	3	c	49	75	5	5	–	–	9+	9+	2500
11	St. Abbs Head	1013.9	+26	WNW	4	c	48	65	8	7	3	–	4-6	9	2500
	Leuchars	1012.7	+18	W	4	c	49	75	8	–	7	9	0	9	–
12	Renfrew (Abbots I.)	1014.9	+10	W'S	4	c	50	75	8	7	3	4	2-3	7-8	2500
	Eskdalemuir	1015.0	+6	WSW	5	c	47	75	7	5	3	–	7-8	7-8	1500
	Point of Ayre	1017.3	+8	N'W	3	c	51	75	8	–	7	–	0	9+	–
13A	Tiree	1013.5	+6	WSW	3	c	49	65	8	4	7	–	4-6	7-8	2500
13B	Stornoway	1010.4	+20	WSW	5	PR	47	85	7	8	7	7	7-8	10	2500
15	Dalwhinnie	1012.5	+4	SW	4	ir	42	75	7	5	–	–	10	10	2500
	Aberdeen	1011.5	+18	W	2	bc	48	65	8	1	4	6	Tr	2-3	2500
	Wick	1007.5	+22	WSW	3	bc	44	85	8	5	3	2	2-3	4-6	2500
16	Lerwick	999.8	+12	W'S	8	c	47	75	7	8	7	–	4-6	7-8	800
17	Blacksod Point	1013.4	−18	SE'S	4	c	48	92	7	–	7	–	0	10	–
18	Malin Head	1014.7	0	S	2	c	47	92	8	8	7	–	4-6	7-8	4000
	Aldergrove	1016.5	−4	S'W	2	o	46	85	7	–	2	–	0	10	–
19	Birr Castle	1016.0	−8	S	1	rr	49	97	7	5	–	–	10	10	2500
20	Valentia Obsy. †	1015.8	−10	SW'W	6	o/d	57	97	6	5	–	–	10	10	450
	Roches Point	1017.7	−8	SSW	3	dr	55	97	6	5	–	–	10	10	450

OBSERVATIONS at 18h. G.M.T. 30th November

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	°F. Temp. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Amount Low 0–10 (26)	Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1021.2	0	SW'W	3	c/d	56	92	5	5	-	-	10	10	1500	1	*
Croydon	1021.3	+2	WSW	4	z$_o$	57	97	6	5	-	-	10	10	1500	1	*
S. Farnborough	1021.6	+4	SW'S	5	c/d	56	97	6	5	-	-	10	10	800	1	*
Boscombe Down	1022.0	+6	SW'W	4	id$_o$	55	97	6	5	-	-	10	10	800	1	*
Calshot (Soton.)	1022.6	+6	WSW	4	o/d	55	97	5	5	-	-	10	10	800	1	3
Lympne	1021.9	+2	WSW	4	z$_o$	54	97	6	5	-	-	10	10	220	1	§ 3
Manston	1021.2	+2	W'S	4	z$_o$	56	97	6	5	-	-	10	10	1500	1	*
Shoeburyness	1020.8	0	W'S	2	c	56	92	4	5	-	-	10	10	800	1	*
Felixstowe	1019.4	0	SW	1	dr	50	97	6	-	2	-	10	10	800	1	1
Gorleston	1019.6	+4	-	0	ir$_o$	51	85	6	6	-	-	10	10	2500	1	2
Mildenhall	1019.3	-6	SSE	2	r$_o$r$_o$	51	97	5	-	2	-	10	10	1500	1	*
Cranwell	1018.2	-10	S'E	1	c/r	48	97	4	5	-	-	10	10	1500	1	*
Birmingham	1017.7	-10	SW	3	r$_o$r$_o$	53	97	4	6	-	-	10	10	800	1	*
Upper Heyford	1019.8	-2	SW	2	z$_o$	55	92	6	5	2	-	7-8	10	800	1	*
Ross-on-Wye	1019.2	0	SW	4	c	56	85	7	6	-	-	10	10	1500	1	*
Hartland Point	1020.9	+2	WSW	6	c	53	97	5	5	-	-	10	10	800	1	4
Bristol																*
Portland Bill	1023.0	+10	W	6	c	54	92	7	5	-	-	10	10	1500	1	5
Plymouth	1024.1	+6	W'S	4	d$_o$d$_o$	55	97	5	5	-	-	10	10	450	1	3
The Lizard	1025.3	0	W'S	5	id$_o$	54	97	3	5	-	-	10	10	800	1	3
Scilly (St. Mary's)	1023.9	+8	SW'W	5	c	54	97	7	5	-	-	7-8	10	1500	1	3
Guernsey	1026.1	+6	WSW	4	id$_o$	54	97	5	5	-	-	10	10	800	1	4
Pembroke	1019.1	+4	W	6	id$_o$	54	97	5	5	-	-	10	10	800	1	3
Holyhead	1014.6	-18	SSW	4	c/d	53	97	7	5	-	-	10	10	800	1	3
Chester (Sealand)	1016.4	-18	SE	2	id$_o$	49	92	4	-	2	-	10	10	1500	1	*
Manchester	1017.1	-12	E'S	2	id	48	97	4	5	2	-	9+	10	1500	1	*
Spurn Head	1018.7	+2	SW	1	r$_o$r$_o$	47	97	4	5	-	-	10	10	1500	1	1
Catterick	1017.9	+8	-	0	pr	47	85	6	5	-	-	10	10	4000	1	*
Tynemouth	1016.7	+4	W	2	c	48	75	5	5	-	-	10	10	1500	1	2
St. Abbs Head	1014.2	0	WSW	3	c	45	85	7	5	-	-	10	10	1500	0	2
Leuchars	1013.2	-2	SW	1	c	44	85	7	5	7	-	2-3	10	4000	1	*
Renfrew (Abbots I.)	1013.7	-10	SW'S	2	cf+	47	85	3	5	2	-	4-6	10	2500	1	*
Eskdalemuir	1015.1	-4	S'W	1	c	42	92	6	5	-	-	10	10	800	1	*
Point of Ayre	1015.0	-14	S	3	r$_o$r$_o$	48	97	7	8	2	-	4-6	10	1500	1	1
Tiree	1010.7	-12	S'W	2	c	45	92	7	5	2	-	4-6	10	1500	0	2
Stornoway	1010.0	-6	WSW	3	c	44	85	7	5	-	-	7-8	7-8	2500	1	2
Dalwhinnie	1013.1	-2	S	2	c	41	85	7	4	6	-	4-6	9+	2500	0	*
Aberdeen	1012.4	+6	WSW	3	c	45	65	6	-	7	-	0	9	-	1	1
Wick	1009.4	+2	WSW	3	c	41	85	8	5	7	8	4-6	7-8	2500	1	2
Lerwick	1002.7	+18	W	8	c	46	65	7	8	7	-	4-6	7-8	800	1	*
Blacksod Point	1006.3	-38	SE	6	RR	56	97	6	6	-	-	10	10	<150	1	4
Malin Head	1010.9	-24	S	2	r$_o$r$_o$	45	97	6	6	-	-	9+	9+	2500	1	3
Aldergrove	1012.2	-30	SSE	2	d$_o$d$_o$	45	92	5	6	2	-	9+	10	1500	1	*
Birr Castle	1012.7	-12	S	3	ir	56	92	7	5	-	-	10	10	2500	1	*
Valentia Obsy. †	1014.5	-6	SW'S	7	c	56	85	6	5	7	-	9+	10	1500	1	4
Roches Point	1017.1	-4	W'S	4	id$_o$	55	92	7	5	-	-	10	10	800	1	4

PAST 24 HOURS.

Stations	Weather 7h.—18h. 30th (37)	Weather 13h.—18h. 30th (38)	Weather 18h. 30th to 1h. 1st (39)	Weather 1h.—7h. 1st (40)
London (Kew)	cd$_o$ir$_o$m	cd$_o$mcm$_o$	cid$_o$cm$_o$	cm$_o$
Croydon	d$_o$d$_o$drdd	ddDr$_o$mcm	cid$_o$m$_o$	cm$_o$cz$_o$
S. Farnborough	d$_o$d$_o$dc	d$_o$d$_o$c	d$_o$em$_o$c	dbccir$_o$
Boscombe Down	cd$_o$d$_o$odd	od$_o$d$_o$id$_o$m$_o$	cid$_o$bcm$_o$	c
Calshot (Soton.)	cid$_o$,d$_o$d$_o$	id$_o$d$_o$d$_o$m$_o$	oid$_o$cm$_o$	cm$_o$id$_o$m$_o$
Lympne	odf d$_o$od$_o$	om$_o$	om$_o$c	cpr$_o$
Manston	d$_o$d$_o$ir$_o$m$_o$	d$_o$d$_o$cm$_o$	cm$_o$	cm$_o$cz$_o$
Shoeburyness	r$_o$r$_o$om	mcid$_o$o	omm$_o$c	c
Felixstowe	id$_o$c, ir$_o$	cor$_o$d$_o$m$_o$	cd$_o$d$_o$c	c
Gorleston	c	cor$_o$	or$_o$d$_o$c	c
Mildenhall	cir$_o$d$_o$c	cor$_o$r$_o$m$_o$	or$_o$r$_o$ir$_o$cbc	cm$_o$cbc
Cranwell	cm$_o$	cm$_o$r$_o$r$_o$cm	r$_o$r$_o$fcm$_o$	cm$_o$
Birmingham	bccirm$_o$	forr$_o$	od$_o$c	c
Upper Heyford	cd$_o$d$_o$m$_o$id	cd$_o$d$_o$mcm	cm$_o$cid$_o$m$_o$	cm$_o$
Ross-on-Wye	r$_o$c	d$_o$o	ocq id$_o$	c
Hartland Point	dfdf	dfdfo	oc	cir$_o$o
Bristol	crd$_o$ddq		cd$_o$d$_o$qc	cid$_o$q
Portland Bill	o	o	c	cid
Plymouth	od$_o$d$_o$m$_o$	od$_o$d$_o$m$_o$	cid$_o$m$_o$	cid$_o$m$_o$
The Lizard	df	dfidm	cpr$_o$	r pr$_o$c
Scilly (St. Mary's)	oid$_o$mo	oid$_o$mc	cbccd	cd$_o$c
Guernsey	id$_o$dd	odid$_o$	id$_o$cpr	cprd$_o$
Pembroke	Fefedfo	ifeddp	cq	cq
Holyhead	cir$_o$	cr$_o$d$_o$m$_o$c	d$_o$c	cir$_o$c
Chester (Sealand)	c	r$_o$Rd$_o$m	omd$_o$d$_o$cir$_o$	cir$_o$z$_o$
Manchester	bcbcm$_o$cm	cm$_o$r$_o$r$_o$m	Dfmr$_o$r$_o$,c	cir$_o$
Spurn Head	cm$_o$	crro	ddc	cq
Catterick	bcc	cpr$_o$	id$_o$r$_o$r$_o$f	cm$_o$ir$_o$c
Tynemouth	cbcc	co	oir rr	orro
St. Abbs Head	bcc	cp	orrc	m$_o$c
Leuchars	bcb,c	c	cir$_o$RRm$_o$	cRRr$_o$r$_o$m$_o$
Renfrew (Abbots I.)	bccir$_o$bc	ccmf	cffrr	
Eskdalemuir	bcc	com$_o$	or$_o$r$_o$rr	rRR r$_o$
Point of Ayre	c	cr$_o$r$_o$	rrc	irc
Tiree	c	c	orr R	pr rdr
Stornoway	bccirrpr	cPRpr	crr	crr
Dalwhinnie	cir	*	*	cRr
Aberdeen	bbc	bccz$_o$	cz$_o$cr	crr r$_o$
Wick	prqbc,	c	c	ciRc
Lerwick	cprq	cprq	c	c
Blacksod Point	ir$_o$c	rrq	iRcq	cq
Malin Head	c	cr$_o$rc	cRrcir$_o$c	c
Aldergrove	bbcco	or$_o$r$_o$d$_o$d$_o$d$_o$	d$_o$d$_o$rrr$_o$r$_o$	cir$_o$m$_o$c
Birr Castle	oidrr	oir	oir$_o$	odocir
Valentia Obsy. †	r$_o$r$_o$Drd$_o$d$_o$	d$_o$d$_o$id$_o$cm$_o$	id$_o$id id$_o$	id Drr$_o$r$_o$
Roches Point	dfdfdr	id$_o$	idc	dd

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_o$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_o$/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.

q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r$_o$, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
Solar halo. lunar halo. Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

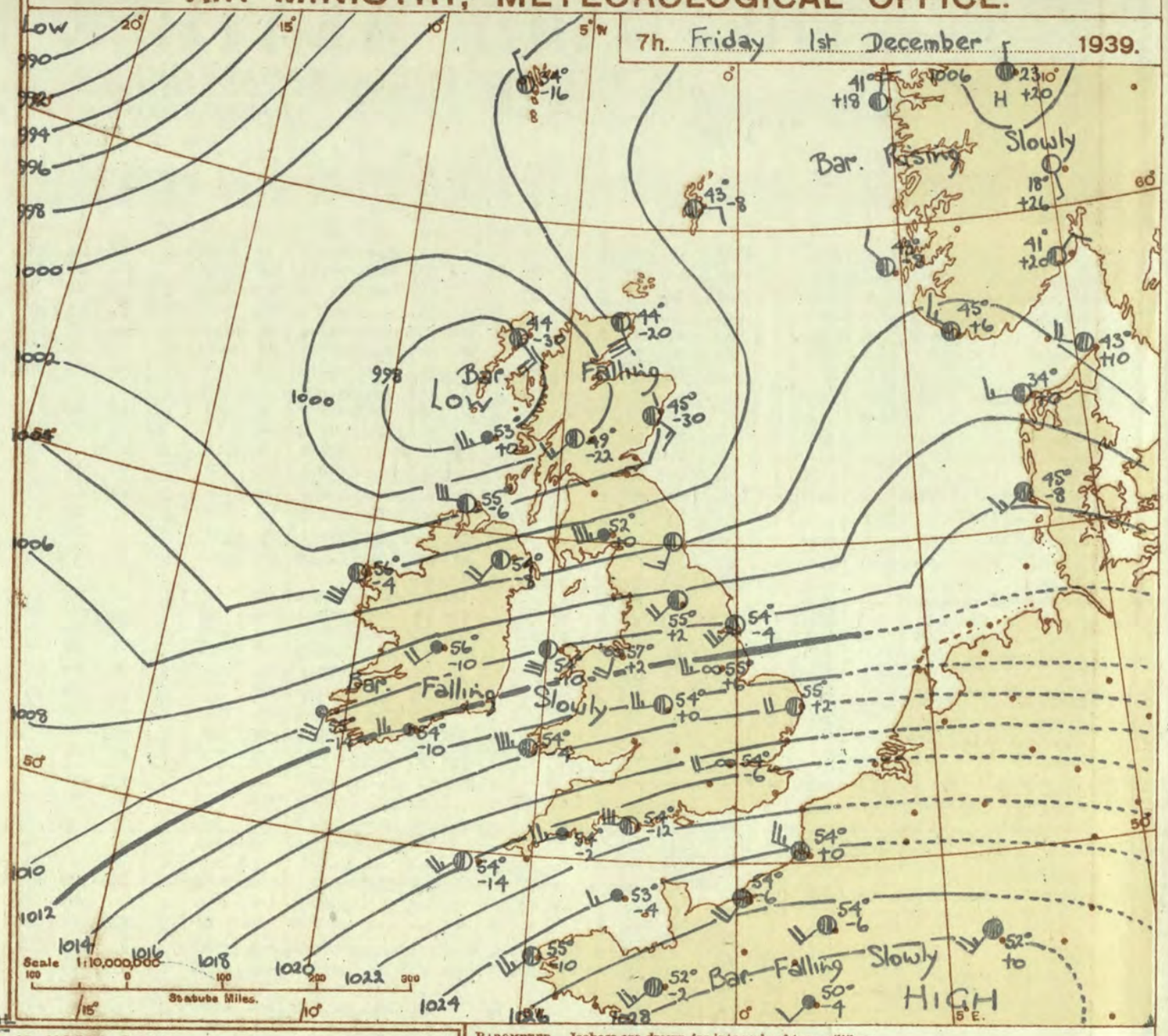
Cloud form abbreviations:— Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.



BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 1st December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... ~~4 W. Midlands ...~~	**Wind southwest, fresh to strong at times on the coast; cloudy; occasional local drizzle chiefly near the south coast; very mild.**
5 S.W. England 6 South Wales ... 7 North Wales ... ~~8 N.W. England~~	Wind southwest, strong at times; occasional rain or drizzle especially tomorrow, local coast mist and hill fog; very mild.
9 N. Midlands ... 10 N.E. England ~~11 S.E. Scotland~~	Wind southwest, fresh to strong at times; cloudy or dull; occasional rain; mild.
12 S.W. Scotland & Isle of Man. 13 A. W. Scotld. B.N.W.Scotland. 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Wind variable to southwest, fresh or strong at first in South Scotland; cloudy or dull; rain at times; mainly rather mild.
~~17 N. W. Ireland~~ 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Wind southwest, strong, perhaps gale at times near the coast; veering tomorrow; dull, occasional rain; brighter periods late in period; mild.

GENERAL INFERENCE.

Pressure is high to southward of the British Isles but is beginning to decline with the advance of a trough of low pressure on the Atlantic. A depression over the Hebrides will move east. In the southeastern half of the British Isles weather will be cloudy with occasional local drizzle but in the North and West there will be occasional rain or drizzle. Conditions will be mild generally with strong winds in many parts of the coast.

FURTHER OUTLOOK.

A period of rain in Eastern England; Colder, brighter conditions spreading from the West.

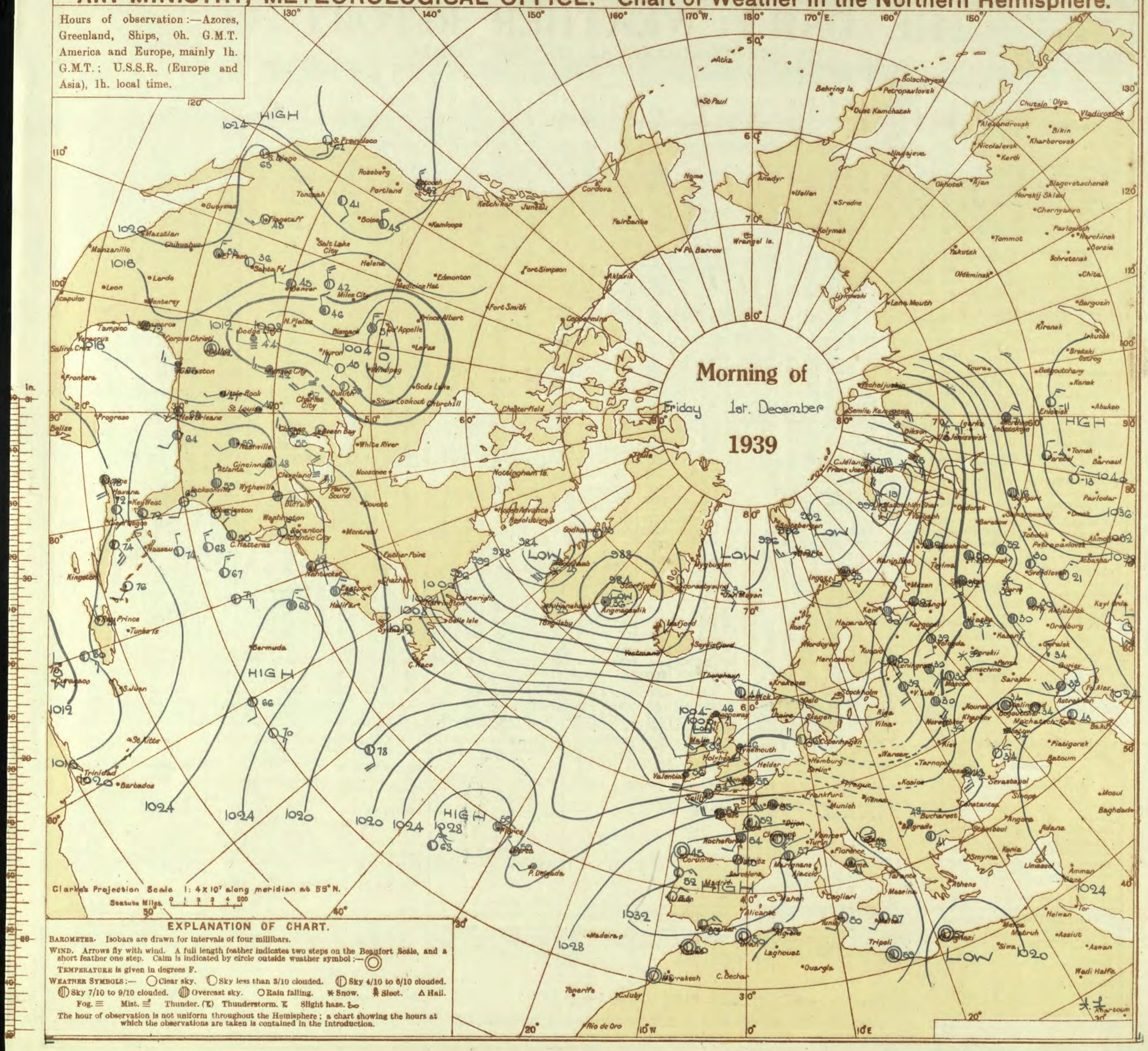
Gale Warning issued to districts 1,2,5,6,19 and 20 at 10.30h. 30/11.
Gale Warning issued to districts 7,8,10,11, 12,13A, 13B,15,16,17,18 at 15.20h. 30/11.

Forecasts issued at 1030 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Friday 1st December 1939.

No. 28498

OBSERVATIONS at 1 hr. G.M.T. 30th November

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1020·9	−6	WSW	4	c	55	85	6	5	–	–	10	10	1500
	S. Farnborough	226	1020·9	−10	SW	4	zo	54	85	6	5	–	–	10	10	4000
	Boscombe Down	417	1021·2	−6	SW	4	zo	54	85	7	5	–	–	9+	9+	1500
	Calshot (Sthmtn.)	8	1022·3	−8	SWW	4	zo	55	92	6	6	–	–	9+	9+	800
	Lympne ...	346	1021·6	−6	WSW	5	c	53	92	7	5	2	–	9	10	800
	Manston ...	154	1020·5	−6	W	4	zo	55	92	6	5	–	–	10	10	800
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1018·2	−2	SW	4	c	54	85	7	5	–	–	9+	9+	2500
	Gorleston ...	5	1016·5	−10	SW	4	c	54	85	6	8	–	–	9+	9+	2500
	Mildenhall ...	19	1016·5	−14	SWW	6	c	55	85	7	5	7	2	Tr	9+	2500
	Cranwell ...	240	1015·0	−10	SWW	5	zo	54	92	6	5	5	4	4-6	7-8	2500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1019·0	−14	WSW	5	c	53	85	6	5	2	–	9	10	1500
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1019·5	−8	W	7	c	53	92	7	5	2	–	7-8	9+	1500
	Bristol ...	209	1020·6	−12	SW	6	c	54	85	8	5	7	–	9	10	2500
	Portland Bill ...	32	1022·4	−4	W	6	c	55	92	7	5	–	–	10	10	2500
	Plymouth ...	82	1023·3	−8	SW	5	zo	55	85	6	5	–	–	10	10	800
	The Lizard ...	240	1024·4	−4	WSW	6	pr	53	97	7	5	–	–	10	10	1500
	Scilly (St. Mary's)	163	1023·0	−4	SW	5	c/d	54	97	6	5	–	–	9+	9+	1500
	Guernsey ...	175	1025·9	0	WSW	3	c/pr	54	92	7	8	–	–	10	10	1500
6	Pembroke ...	142	1018·0	0	WSW	7	cq	54	92	7	8	2	–	7-8	10	1500
7	Holyhead ...	26	1011·7	−14	SSW	6	c	54	92	7	6	2	–	7-8	10	1500
	Chester (Sealand)	16	1013·5	−22	S	3	iro	57	75	7	5	2	–	9+	10	1500
8	Manchester ...	70	1013·2	−14	SWW	4	c	55	85	7	5	1	–	4-6	10	2500
10	Spurn Head ...	29	1012·4	−20	WSW	3	c	52	97	6	5	2	–	4-6	10	2500
	Catterick ...	175	1010·2	−30	SW	3	ro	50	92	5	5	–	–	10	10	800
	Tynemouth ...	108	1009·6	−40	S	4	rr	46	97	5	–	2	–	10	10	1500
11	St. Abbs Head	280	1008·1	−48	S	4	rr	42	97	7	3	2	–	7-8	10	1500
	Leuchars ...	36	1007·8	−40	NW	1	RR	42	92	6	5	–	–	10	10	4000
12	Renfrew (Abbots I.)	19	1006·3	−4	E	3	rf	43	97	3	5	2	–	9+	10	800
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	1007·8	−26	WSW	7	c	56	85	7	8	1	–	4-6	10	1500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1005·2	−28	ESE	3	ro	46	85	7	5	2	–	9	10	1500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1007·3	−18	SSW	1	c	43	85	7	5	1	–	7-8	9+	1500
16	Lerwick ...	156	1006·2	−4	NW	3	c	44	75	8	5	7	–	7-8	9+	1500
17	Blacksod Point	18	1003·3	−6	S	8	cq	56	92	7	8	–	–	10	10	1500
18	Malin Head ...	84	1002·0	−20	SW	4	ro	55	97	5	6	–	–	9+	9+	800
	Aldergrove ...	268	1005·8	−14	SSW	4	iro	54	97	6	6	–	–	10	10	800
19	Birr Castle ...	173	1010·4	−8	SW	6	iro	55	97	7	5	–	–	10	10	2500
20	Valentia Obsy.	30	1012·2	−12	SSW	6	ido	56	92	5	5	–	–	10	10	800
	Roches Point	22	1014·9	−10	WSW	5	c/d	54	92	8	5	–	–	9+	9+	800

OBSERVATIONS at 7 hr. G.M.T. 1st December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
1	London (Kew)	1019·2	−6	SW	4	zo	54	85	6	5	–	–	9	9	1500	1	*
	Croydon ...	1020·2	−2	WSW	4	c	53	85	6	5	–	–	9	9	1500	1	*
	S. Farnborough	1020·0	0	SW	4	c/r	53	97	6	5	–	–	9+	9+	1500	1	*
	Boscombe Down	1020·1	−6	SWS	4	c	52	85	7	5	7	–	4-6	7-8	2500	1	*
	Calshot (Sthmtn.)	1021·1	−2	WSW	4	id	53	92	6	6	–	–	9+	9+	800	1	3
	Lympne ...	1021·0	0	WSW	4	c/pr	52	85	7	5	2	–	9	10	1500	1	*
	Manston ...	1020·0	+2	WNW	5	zo	54	75	6	5	–	–	10	10	2500	1	*
2	Shoeburyness ...	1019·8	+4	SW	6	c	55	75	6	5	–	–	10	10	1500	1	*
	Felixstowe ...	1017·4	+2	WS	4	c	54	85	8	5	–	–	9	9	2500	1	2
	Gorleston ...	1015·2	+2	SW	4	c	55	75	7	5	–	–	9+	9+	2500	1	3
	Mildenhall ...	1015·3	−18	SW	6	c	54	85	7	5	7	2	2-3	9+	2500	1	*
	Cranwell ...	1013·0	+6	WSW	5	zo	55	85	6	5	–	–	9+	9+	2500	1	*
3	Birmingham ...	1015·3	0	WSW	5	c	54	75	8	5	–	–	10	10	1500	1	*
	Upper Heyford	1018·0	−6	SW	5	zo	52	85	6	5	2	–	9+	10	1500	1	*
4	Ross-on-Wye	1016·5	−8	SW	5	cq	54	85	8	5	–	–	10	10	2500	1	*
5	Hartland Point	1017·3	−8	WSW	6	c	52	97	6	5	–	–	10	10	800	1	4
	Bristol ...	1019·2	−10	SW	5	c	53	85	8	5	–	–	9+	9+	1500	2	*
	Portland Bill ...	1020·8	−12	W	6	c	54	92	7	5	–	–	10	10	4000	1	5
	Plymouth ...	1021·4	−2	SW	5	ido	54	92	5	6	–	–	10	10	450	1	4
	The Lizard ...	1021·5	−8	WSW	6	c	53	97	7	8	2	–	7-8	9+	1500	1	3
	Scilly (St. Mary's)	1019·9	−14	SW	5	c	54	85	7	5	–	–	9+	9+	1500	1	3
	Guernsey ...	1024·0	−4	SWW	3	dodo	53	92	6	8	–	–	7-8	10	1500	1	4
6	Pembroke ...	1015·2	−4	WSW	7	cq	54	97	6	8	–	–	9+	9+	1500	1	4
7	Holyhead ...	1010·4	−10	SSW	6	c/r	54	92	7	6	2	–	9	10	1500	1	3
	Chester (Sealand)	1012·2	+2	SSW	4	zo	57	75	6	5	3	–	7-8	9+	4000	1	*
8	Manchester ...	1011·7	−6	SWW	5	iro	55	85	6	5	2	–	9	10	800	1	*
10	Spurn Head ...	1010·2	−4	SW	5	cq	54	85	7	5	–	–	9+	9+	1500	1	3
	Catterick ...	1008·0	+2	SW	4	c/r	55	85	7	5	–	–	9+	9+	1500	1	*
	Tynemouth ...	1006·1	−6	SSW	5	c	54	75	6	8	–	–	9+	9+	1500	1	2
11	St. Abbs Head	1001·6	−12	W	4	c	55	92	8	8	2	–	7-8	10	1500	0	3
	Leuchars ...	1001·8	−10	W	2	r.ro	44	97	6	5	–	–	9	9	2500	1	*
12	Renfrew (Abbots I.)																*
	Eskdalemuir ...	1004·3	0	SWW	7	ro.ro	52	97	6	–	2	–	10	10	220	2	
	Point of Ayre...	1006·4	0	WS	6	c	55	97	8	8	–	–	9	9	1500	1	3
13A	Tiree	997·8	0	SWW	5	dd	53	97	5	–	2	–	10	10	800	1	4
13B	Stornoway ...	997·6	−30	SE	4	c	44	85	8	5	7	–	4-6	7-8	4000	1	2
15	Dalwhinnie ...	999·8	−22	SW	3	c	49	92	7	8	7	–	7-8	9+	2500	1	*
	Aberdeen ...	1001·7	−30	SEE	3	c/r	45	97	6	6	2	–	9	10	800	1	2
	Wick ...	1002·3	−20	SSE	6	c/r	44	75	7	5	2	–	7-8	10	1500	1	2
16	Lerwick ...	1004·6	−8	E	2	c	43	85	8	5	7	–	7-8	9+	1500	1	*
17	Blacksod Point	1003·5	−4	SSW	7	cq	56	97	7	8	–	–	10	10	450	1	4
18	Malin Head ...	1000·8	−6	W	6	c	55	92	7	9	–	–	7-8	7-8	2500	1	4
	Aldergrove ...	1004·4	−8	SW	4	c/r	54	92	7	6	–	–	10	10	1500	2	*
19	Birr Castle ...	1008·4	−10	SW	4	ir	56	92	7	6	2	–	7-8	10	1500	1	*
20	Valentia Obsy.	1009·9	−14	SSW	6	ro.ro	55	97	6	6	–	–	10	10	800	1	4
	Roches Point	1012·3	−10	WSW	5	dd	54	97	5	5	–	–	10	10	220	1	4

PAST 24 HOURS.

District	Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 30th Hrs. (36)
1	London (Kew)	56	53	52	7	Tr	0·0
	Croydon ...	57	53	51	7	Tr	0·0
	S. Farnborough	57	52	50	2	Tr	0·0
	Boscombe Down	57	52	49	1	0·1	0·0
	Calshot (Sthmtn.)	56	53	51	0·1	0·1	0·0
	Lympne ...	54	51	50	1	Tr	0·0
	Manston ...	57	53	51	1	Tr	0·0
2	Shoeburyness ...	58	54	50	Tr	–	0·0
	Felixstowe ...	57	50	50	0·1	0·2	0·0
	Gorleston ...	58	47	46	0·1	1	*
	Mildenhall ...	57	50	49	0·5	1	0·0
	Cranwell ...	55	47	46	1	2	0·0
3	Birmingham ...	54	53	51	2	0·1	0·0
	Upper Heyford	55	51	48	1	Tr	*
4	Ross-on-Wye	56	53	52	0·1	Tr	0·0
5	Hartland Point	54	52	51	2	0·3	0·0
	Bristol ...	57	53	49	–	0·3	0·0
	Portland Bill ...	55	52	*		0·2	*
	Plymouth ...	57	53	52	1	1	0·0
	The Lizard ...	54	52	*	0·5	0·5	0·0
	Scilly (St. Mary's)	55	52	*	0·2	Tr	0·0
	Guernsey ...	56	52	50	1	1	0·0
6	Pembroke ...	55	52	*	2	0·1	0·0
7	Holyhead ...	53	53	52	0·6	0·2	0·0
	Chester (Sealand)	53	49	48	1	0·1	0·0
8	Manchester ...	52	47	47	0·3	2	0·4
10	Spurn Head ...	50	45	*	1	3	0·0
	Catterick ...	47	44	32	Tr	2	0·0
	Tynemouth ...	50	45	42	–	6	*
11	St. Abbs Head	48	41	*	–	9	*
	Leuchars ...	50	41	40	–	12	2·0
12	Renfrew (Abbots I.)	50			Tr		
	Eskdalemuir ...	48	40	39	–	19	1·8
	Point of Ayre...	52	47	*	0·4	6	0·1
13A	Tiree	50	43	41	–	14	0·0
13B	Stornoway ...	47	42	*	2	3	0·0
15	Dalwhinnie ...	43	35	33	0·1	12	1·3
	Aberdeen ...	49	40		–	9	
	Wick ...	44	40	*	0·2	3	*
16	Lerwick ...	51	41	*	0·3	–	0·2
17	Blacksod Point	58	54	*	14	3	*
18	Malin Head ...	49	44	*	1	16	0·0
	Aldergrove ...	47	44	43	1	11	0·0
19	Birr Castle ...	57	54	54	4	4	0·0
20	Valentia Obsy.	57	55	54	5	5	0·0
	Roches Point	55	53	*	2	1	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h. other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon (24 hrs. ended 9h.)	Weather Night (24 hrs. ended 9h.)	Temperature Day Max. °F.	Temperature Night Min. °F.	Temperature Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
Kew...	18	cdoirom	cdomoido,mo		56	53	52	7	Tr	0·0	*	*	
Croydon	217	dododr	Drcmocid,czo		57	53	51	7	Tr	0·0	*	*	
Greenwich (Royal Observatory)...	149												
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*									*
Regents Pk. (Botanic Gardens)‡...	168	*	*	*									*
Camden Square	110			*						*	*		*
Kensington	80			*									*
Hampstead Observatory	450										*		*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre. 24 hrs. ended 7h. G.M.T. 1st....

South Kensington Max.	Time.	Min.	Time.

Kew Observatory Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 30th November Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 1st December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1028·2	W	6	c	57	1027·1	SW	4	c	54	57	54	–	–
Brussels														
Berlin														
Zürich														
Rome	1027·3	NW	3	b	57	1010·3	ENE	3	c	*	*	*	*	*

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1½ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

0 Calm.	5 Very rough.
1 Smooth.	6 High.
2 Slight.	7 Very high.
3 Moderate.	8 Preciptious.
4 Rough.	9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Saturday 2nd December 1939.
No. 28,499.

OBSERVATIONS at 13h. G.M.T. 1st December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Amount Low 0–10 (12)	Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1017·6	-6	SW	4	c	54	85	7	5	7	2	7-8	9+	1500
	Croydon ...	1018·5	-10	SW	4	pro	54	85	8	9	4	-	9	9+	1500
	S. Farnborough	1018·4	-14	SW	4	c/d	53	85	7	5	-	-	9+	9+	1500
	Boscombe Down	1017·9	-16	SW'S	4	c/d	53	85	7	5	-	-	9+	9+	1500
	Calshot (Soton.)	1019·1	-18	WSW	4	zo	54	92	6	9	2	2	9	9+	800
	Lympne ...	1019·5	-14	WSW	5	pro	52	92	9	5	-	-	10	10	800
	Manston ...	1018·1	-14	W	5	c	55	85	7	5	-	-	9+	9+	1500
2	Shoeburyness ...	1017·9	-8	SW'S	6	c	55	85	6	6	7	-	7-8	9	1500
	Felixstowe ...	1016·1	-10	SW'W	5	c	56	85	7	5	7	-	7-8	9+	1500
	Gorleston ...	1014·3	-4	SW'S	4	c	56	75	7	5	-	-	7-8	7-8	2500
	Mildenhall ...	1013·3	-18	SW	6	c	56	85	8	5	-	8	9+	9+	1500
	Cranwell ...	1011·1	-14	SW	4	c	55	85	7	5	7	-	9	10	1500
3	Birmingham	1012·9	-10	SW	4	o	54	85	8	5	-	-	10	10	1500
	Upper Heyford	1016·1	-18	SW'S	4	ido	53	85	7	5	2	-	7-8	10	1500
4	Ross-on-Wye ...	1014·9	-10	SW	5	ido	53	85	7	5	-	-	10	10	1500
5	Hartland Point	1014·7	-16	WSW	6	dodo	52	97	6	5	-	-	10	10	800
	Bristol ...	1016·6	-22	SW	3	c	54	85	8	5	2	-	9	10	1600
	Portland Bill ...	1018·7	-8	WSW	6	c	54	92	7	5	7	-	7-8	10	4000
	Plymouth ...	1018·2	-22	SW	6	ido	54	92	5	5	-	-	10	10	450
	The Lizard ...	1019·1	-20	WSW	6	ido	53	97	3	5	-	-	10	10	1500
	Scilly (St. Mary's)	1016·8	-20	SW'S	5	ido	53	97	6	5	-	-	10	10	1500
	Guernsey ...	1021·3	-22	SW	3	c	55	85	7	8	3	-	7-8	7-8	1500
6	Pembroke ...	1012·5	-20	WSW	7	og	53	97	6	5	-	-	10	10	800
7	Holyhead ...	1008·1	-14	SSW	6	iro	54	97	6	6	2	-	7-8	10	800
	Chester (Sealand)	1009·6	-14	SW'S	4	c	60	65	8	5	7	8	7-8	9	1500
8	Manchester ...	1009·8	-14	SW	4	o	57	85	7	5	-	-	10	10	1500
10	Spurn Head ...	1010·1	-2	SW'S	4	o	54	85	6	5	-	-	10	10	1500
	Catterick ...	1006·6	-18	SW	4	c	56	85	8	6	3	-	4-6	9+	1800
	Tynemouth ...	1005·3	-12	SW	3	c	57	85	6	8	-	-	9+	9+	1800
11	St. Abbs Head ...	999·5	-24	W	5	bc	54	85	8	8	6	9	2-3	4-6	2500
	Leuchars ...	999·7	-18	WSW	4	dodo	55	85	7	5	-	-	10	10	800
12	Renfrew (Abbots I.)	1001·4	-14	SW'W	5	c/r	55	85	6	5	7	6	7-8	9	800
	Eskdalemuir ...	1002·5	+14	SW'W	7	dd	52	97	6	-	2	-	10	10	220
	Point of Ayre ...	1005·3	-10	WSW	6	ido	57	85	8	5	2	-	9	10	1600
13A	Tiree ...	998·4	0	WSW	4	ido	49	97	6	5	-	8	4-6	7-8	800
13B	Stornoway ...	996·5	-6	—	0	o/d	47	97	6	5	-	-	10	10	450
15	Dalwhinnie ...	998·0	-16	SW	5	c	50	85	7	8	-	8	4-6	9+	2500
	Aberdeen ...	999·1	-18	SW	1	c	47	92	6	4	-	6	1	7-8	2500
	Wick ...	997·6	-22	SE	5	rr	47	97	6	5	2	-	7-8	10	800
16	Lerwick...	1001·5	-24	SE	4	c	46	85	8	8	7	-	7-8	9+	1500
17	Blacksod Point..	998·9	-30	S	5	dr	54	92	6	6	-	-	10	10	<150
18	Malin Head ...	1000·4	-8	W	3	c	53	92	7	5	-	-	9	9	1500
	Aldergrove ...	1002·8	-22	SSW	4	o/d	55	97	5	5	-	-	10	10	800
19	Birr Castle ...	1004·6	-28	SSW	3	c	57	85	7	5	1	-	7-8	10	2500
20	Valentia Obsy. †	1003·8	-26	S'W	6	c/r	56	92	6	5	2	-	9+	10	800
	Roches Point ...	1008·1	-34	SW'W	5	rr	53	97	6	6	2	-	7-8	10	800

OBSERVATIONS at 18h. G.M.T. 1st December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Amount Low 0–10 (26)	Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1014·0	-22	SW	4	ido	54	85	6	5	-	-	10	10	1500	1	*
Croydon	1015·3	-22	SW	5	ido	54	85	6	5	-	-	10	10	1500	1	*
S. Farnborough	1014·4	-20	SSW	5	dodo	53	97	6	5	-	-	10	10	1500	1	*
Boscombe Down	1013·8	-14	SW'S	5	c/d	52	92	6	6	-	-	10	10	1500	1	*
Calshot (Soton.)	1015·8	-18	WSW	5	ido	54	92	6	5	-	-	10	10	800	1	3
Lympne	1016·8	-14	SW	5	ido	51	92	7	5	-	-	10	10	800	1	§ 4
Manston	1015·5	-28	WSW	6	o/d	53	92	7	5	-	-	10	10	1500	1	*
Shoeburyness	1014·8	-14	SW'S	5	c	54	85	7	5	7	-	9	10	1500	1	*
Felixstowe	1013·6	-16	SSW	4	c	52	85	7	6	-	-	9+	9+	1500	1	3
Gorleston	1012·2	-4	SSW	5	c	54	75	6	5	-	-	7-8	7-8	2500	0	2
Mildenhall	1011·5	-18	SSW	5	bc	55	85	7	5	-	-	4-6	4-6	4000	1	*
Cranwell	1007·9	-26	SW	6	zo	53	85	6	5	7	-	4-6	4-6	1500	0	*
Birmingham	1009·1	-18	SW	4	c	53	85	6	5	-	-	9+	9+	1500	1	*
Upper Heyford	1012·4	-22	SW	5	c	53	85	7	5	7	-	9	10	1500	1	*
Ross-on-Wye	1010·3	-30	SW	4	dd	53	97	6	6	-	-	10	10	1500	1	*
Hartland Point	1000·9	-12	WSW	7	c/r	*	97	8	5	2	-	7-8	9+	1500	1	5
Bristol	1012·2	-18	SSW	5	c/r	54	85	7	5	3	-	9	10	1500	1	*
Portland Bill	1014·6	-8	WSW	6	id	54	92	7	5	-	-	10	10	2500	1	5
Plymouth	1013·9	-20	SW'S	7	ido	54	97	6	5	-	-	10	10	800	1	5
The Lizard	1014·5	-20	S'W	7	df	53	97	3	5	-	-	10	10	800	1	3
Scilly (St. Mary's)	1012·6	-14	SW	6	c	54	97	6	5	-	-	7-8	7-8	1500	1	4
Guernsey	1018·3	-12	SW	4	c	54	85	7	8	-	-	9+	9+	2500	1	4
Pembroke	1007·1	-20	SW'W	8	cq	54	92	7	8	-	-	9+	9+	1500	1	4
Holyhead	1001·8	-34	SSW	6	dodo	53	97	5	5	-	-	10	10	450	1	3
Chester (Sealand)	1004·8	-32	S'W	3	bc	55	85	7	5	-	-	2-3	2-3	2500	1	*
Manchester	1005·2	-26	S'W	4	zo	55	92	6	5	-	-	9	9	1500	1	*
Spurn Head	1006·1	-14	SW'S	5	c	53	85	7	5	-	-	7-8	7-8	1500	0	3
Catterick	1003·3	-22	SW'W	3	zo	54	85	6	6	2	-	7-8	9+	1500	1	5
Tynemouth	1002·2	-26	SW	3	c	55	85	6	6	-	-	9	9	1500	1	1
St. Abbs Head	998·2	-18	S	4	c/pr	53	97	8	8	6	-	4-6	7-8	2500	1	3
Leuchars	996·7	-20	SW	2	rr	53	85	6	5	-	-	10	10	1500	1	*
Renfrew (Abbots I.)	996·1	-38	SSW	4	iro	55	92	6	5	-	-	10	10	2500	1	*
Eskdalemuir	998·1	-24	S'W	6	rr	50	97	4	-	2	-	10	10	<150	1	*
Point of Ayre	998·6	-42	SW'W	6	bc	54	97	7	8	-	-	2-3	2-3	1500	1	3
Tiree	991·0	-36	ENE	1	RR	48	97	6	-	2	-	10	10	800		
Stornoway	994·8	-10	WNW	3	o	45	92	7	5	-	-	10	10	1500	1	2
Dalwhinnie	*	-18	NNE	3	iro	48	92	7	6	7	-	4-6	10	2500	1	*
Aberdeen	995·5	-26	SW'S	1	b	48	92	6	5	7	-	tr	1	4000	1	1
Wick	994·3	-16	SSE	3	c	47	92	7	5	7	-	7-8	9+	1000	1	2
Lerwick	996·7	-24	SE	4	c/pr	45	92	7	8	7	-	9	10	800	1	*
Blacksod Point	993·3	-30	S	5	cq	53	85	7	8	-	-	10	10	450	1	4
Malin Head	992·5	-34	WSW	2	iro	52	92	7	8	-	-	9	9	4000	1	3
Aldergrove	995·3	-44	SSW	4	c/r	54	85	7	5	2	-	7-8	9+	2500	1	*
Birr Castle	989·6	-10	SSW	3	c/pr	53	85	8	8	-	-	7-8	7-8	1500	1	*
Valentia Obsy. †	1003·2	+14	WSW	5	bc/pr	53	92	7	4	-	-	2-3	2-3	1500	1	5
Roches Point	1003·9	-14	WSW	5	c/d	54	92	7	5	-	-	7-8	7-8	800	1	4

PAST 24 HOURS. WEATHER.

Stations	7h.—13h. 1st (37)	13h.—18h. 1st (38)	18h. 1st – 1h. 2nd (39)	1h.—7h. 2nd. (40)
London (Kew)	cmoc	ccmidomo	cidomocmo	cbcb
Croydon	cmocdo	cprodomo	cdorocbcmo	cmoro
S. Farnborough	probcvdc	idomoc	crorocmo	
Boscombe Down	cido	cidocmo	cidomoc	cirobcc
Calshot (Soton.)	cpbddo	cmoido	idoidmo	bcmob
Lympne	cido	coido	oidofdodo	crobcc
Manston	czobcc	cido	cidocmo	cmocb
Shoeburyness	bcc	c	ciro	irobcb
Felixstowe	c	c	cidoc	cidob
Gorleston	c	c	coirocq	cq
Mildenhall	c	c	cdodoc	cbccb
Cranwell	c	ccmo	c,b,cmo	cprocmo
Birmingham	c	c	ciro	cprobc
Upper Heyford	cido	cdoc	cdodocidomo	cidomoc
Ross-on-Wye	cqido	cidodo	roqpoqcq	cbc
Hartland Point	ododo	dor roc	cirop	ciro
Bristol	cqdoc	croq	roprorq	crobccq
Portland Bill	c	oiq	oidc	c
Plymouth	cidomo	cdododoido	cidoidmo	bcbprob
The Lizard	cidm	omidf	bc	bc
Scilly (St. Mary's)	coido	oidomc	cidoc	cpqbc
Guernsey	cdoc	bbcc	cirbc	cbc
Pembroke	idomododoq	orrmoqc	cbccq	cprbc
Holyhead	rrroro	roRdodoo	ododomoc	c,bbc
Chester (Sealand)	c	circbc	bccro	bccdoroc
Manchester	ciromoc	crocrrroro	crobczo	cmoproqpr
Spurn Head	cqpro	c	cq	cq
Catterick	ciroc	cirocmo	iromobc	bc
Tynemouth	c	c	cbc	cpcq
St. Abbs Head	bc	cpr	bcc	rrcq
Leuchars	d	r	crorRRbcc	crrc
Renfrew (Abbots I.)	cmororoiro	cmociro	cirir omo	crmoiro
Eskdalemuir	roodd	ororofd	rrRR	rrcpro
Point of Ayre	idoc	cprq	cprcc	cbc
Tiree	oddc	oidrR	oRRc	cpr
Stornoway	cdd	c	cpro	crrphr
Dalwhinnie	cir	ciro		cRrir
Aberdeen	crobc	bccbmo	cRrir	crrc
Wick	crrmo	c	croro	dodpr
Lerwick	c	pr	ocrodd	cdd
Blacksod Point	rrq	cq	prcq	bcq
Malin Head	c	cRrc	crrc	cprocphroc
Aldergrove	cidoo	dororoc	dodro,c	cprobcb
Birr Castle	circ	cpr	c	bbcc
Valentia Obsy. †	idoiroirc	cmopr.b	prophrbc	phrproc
Roches Point	drrr	cidc	cbc	bbc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/so, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
so/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. ro, slight rain. rr, continuous rain.
<, less than (for cloud height). ↗gale.
⊕ Solar halo. Ⓘ lunar halo. ⌂Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

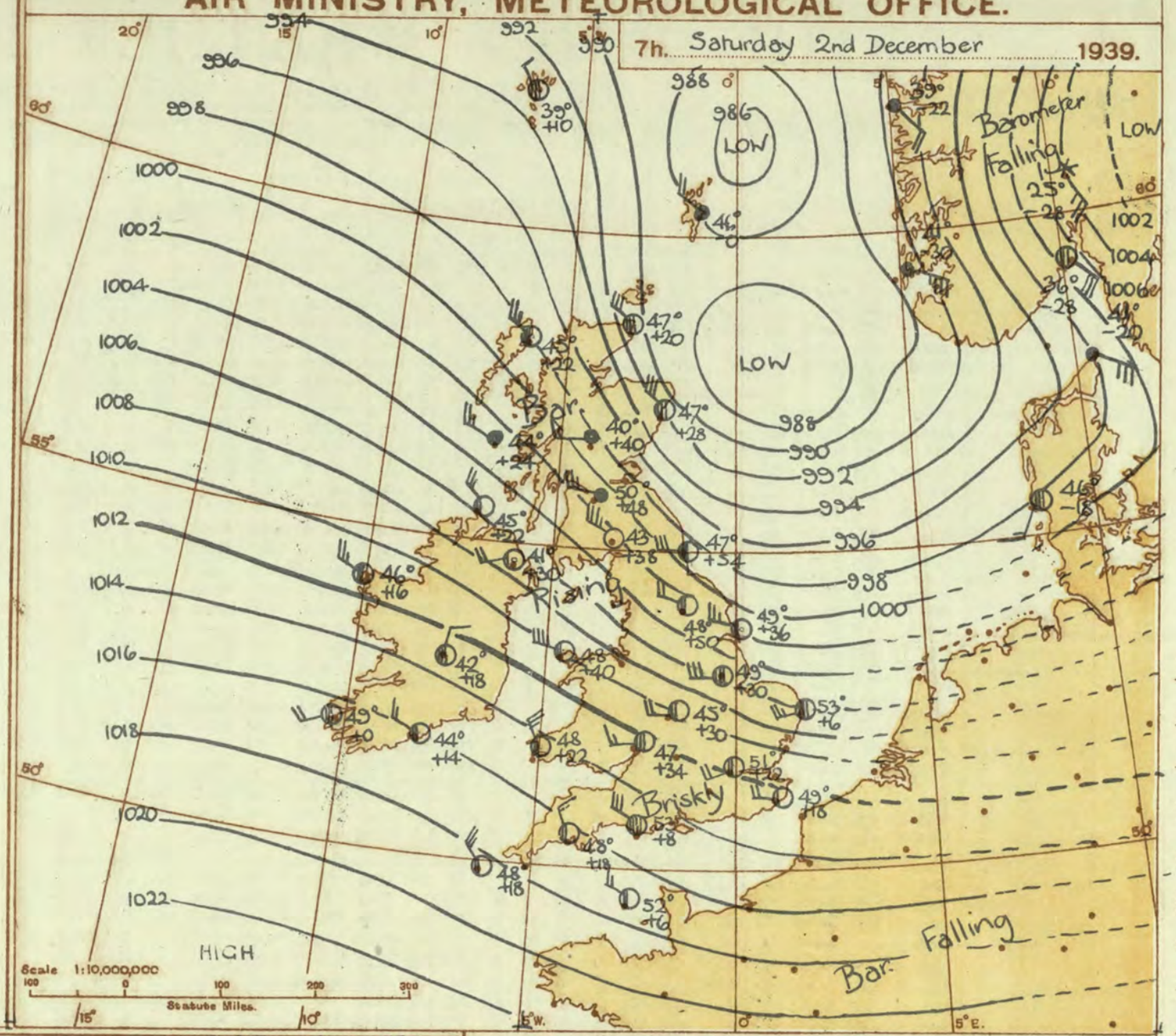
Cloud form abbreviations:— Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. „ wet.
2 .. „ flooded.
3 .. „ frozen hard and dry.
4 .. „ partly covered with snow or hail.
5 .. „ covered with ice or glazed frost.
6 .. „ covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. „ covered with snow, less than 6 ins., but ground frozen.
9 .. „ covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.



DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 2nd December, 1939
1 S.E. England 2 E. England ... 3 E. Midlands ...	Wind westerly moderate, gusty, backing slowly later; fair or fine today, some showers later; average temperature with ground frost locally at night.
4 W. Midlands ... 5 S.W. England 6 South Wales ...	Wind northwest to west, fresh to moderate, backing slowly later, freshening; considerable bright periods; local coastal showers; cloud increasing tomorrow; average temperature.
7 North Wales ... 8 N.W. England 9 N. Midlands ...	Wind northwest, fresh, squally, moderating slowly backing later; rain or hail showers; bright periods; average to rather low temperature; local ground frost at night.
10 N.E. England 11 S.E. Scotland	Wind northwest, strong to fresh, squally, moderating slowly; bright periods; local showers; rather cold.
12 S.W. Scotland & Isle of Man. 13 A. W. Scotld. / B.N.W.Scotland. 14 Mid Scotland	As 7 - 9.
15 N. E. Scotland 16 Orkneys and Shetlands	Wind northwest, strong to gale, moderating slowly; squally showers of rain and hail; some bright intervals, rather cold.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Wind northwest to west, moderate to fresh locally, backing southwest probably increasing later; bright periods today, some showers of rain and hail; cloud increasing, rain spreading from west tomorrow; average temperature.

BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

A complex depression between Scotland and Norway is moving northeastward and small secondaries are likely to cross the British Isles and will probably be followed later by a new depression from the Atlantic. Weather will be fair or fine in southeast districts most of today, but some local showers are expected later. In the North there will be bright periods with showers of rain or hail. Temperatures will be about average.

FURTHER OUTLOOK.

Continuing unsettled.

Gale Warning.

Gale warning issued to part of district 2, at 10.30 hours 30/11/39.

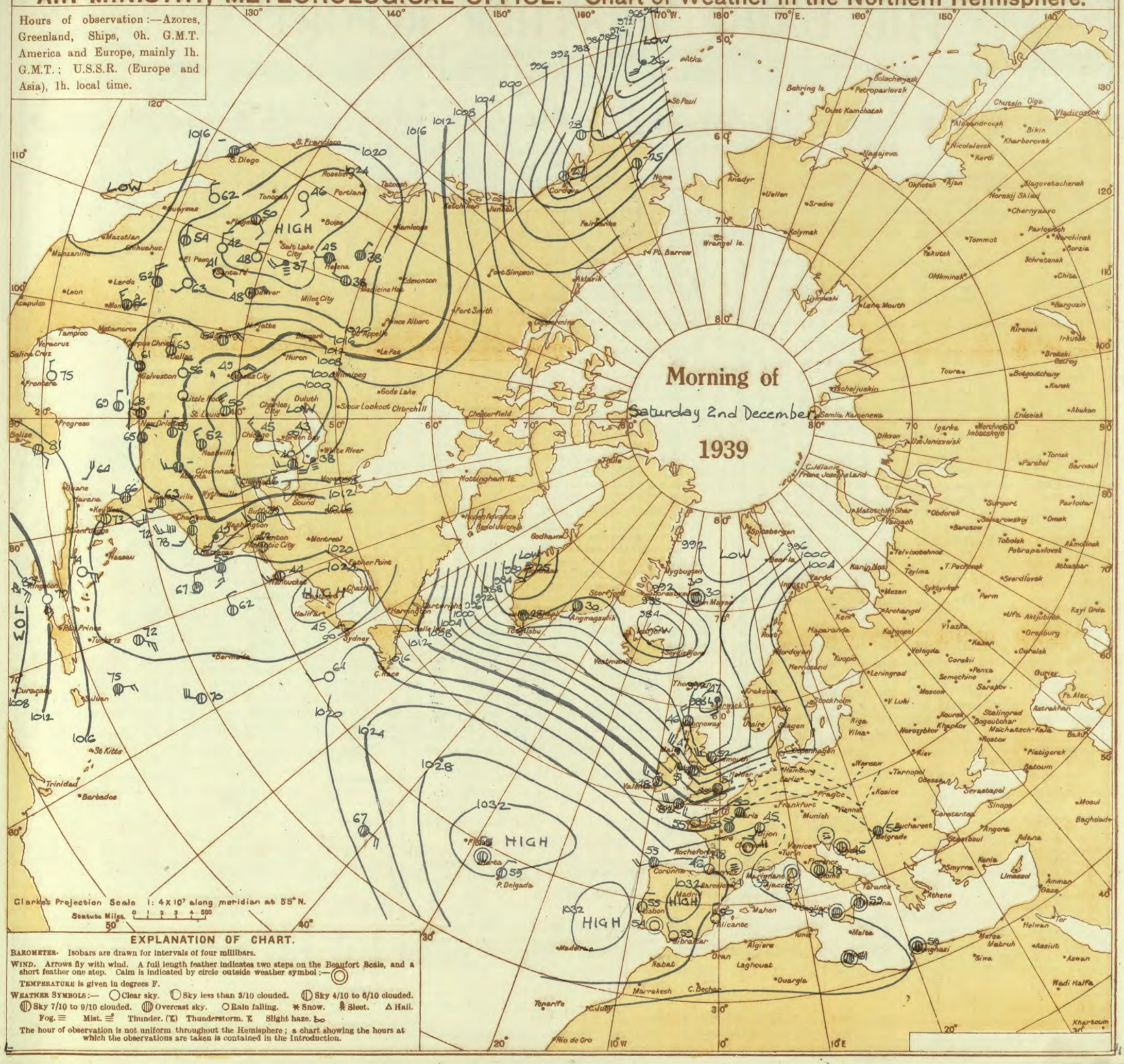
Gale warning issued to districts 10,11,13B, 15 & 16. at 15.20 hours 30/11/39

Forecasts issued at 1100 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Saturday 2nd December 1939.

No. 28499

OBSERVATIONS at 1 hr. G.M.T. 2nd December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Med. (10)	High (11)	Amount Low 0–10 (12)	Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1009.5	-18	SW	5	c/r	54	92	6	5	-	-	9	9	1500
	S. Farnborough	226	1009.0	-22	SSW	5	zo	54	85	5	5	-	-	7-8	7-8	1500
	Boscombe Down	417	1009.0	-18	SW	5	iro	53	85	7	5	-	-	10	10	1500
	Calshot (Sthmtn.)	8	1010.4	-18	WSW	5	zo	54	92	6	5	-	-	4-6	4-6	800
	Lympne ...	346	1011.8	-20	SW	5	c/d	52	97	7	5	-	-	9+	9+	800
	Manston ...	154	1009.7	-26	WSW	6	zo	54	85	6	5	-	-	10	10	1500
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1007.3	-30	WSW	4	c	52	85	7	5	-	-	9+	9+	2500
	Gorleston ...	5	1005.8	-30	S	4	c	54	75	7	5	-	-	9+	9+	2500
	Mildenhall ...	19	1005.0	-26	SW	5	c	55	75	7	5	-	-	9+	9+	2500
	Cranwell ...	240	1001.5	-26	SW	6	zo	53	85	6	5	-	-	9	9	2500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1007.3	-10	WSW	5	c	52	85	7	5	1	-	9+	10	1500
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1010.6	+34	W	4	c	52	85	8	5	-	-	7-8	7-8	2500
	Bristol ...	209	1008.5	-10	SW	6	ido	52	85	7	5	-	-	9	9	1500
	Portland Bill ...	32	1010.7	-6	W	6	c/	54	92	7	5	-	-	10	10	2500
	Plymouth ...	82	1012.9	+12	W	5	id	54	85	6	6	-	-	10	10	800
	The Lizard ...	240	1014.3	+16	W	7	bc	52	85	8	8	-	-	4-6	4-6	2500
	Scilly (St. Mary's)	163	1014.8	+30	W'N	6	c	52	85	8	5	-	-	9+	9+	1500
	Guernsey ...	175	1014.7	+16	WSW	5	c	55	85	7	8	-	-	9	9	1500
6	Pembroke ...	142	1009.1	+22	WNW	7	cq	52	85	7	8	-	-	7-8	7-8	1500
7	Holyhead ...	26	1002.1	+26	W'S	7	c	51	85	8	8	-	-	9+	9+	2500
	Chester (Sealand)	16	1001.2	+2	WNW	5	c/r	54	65	7	5	-	-	7-8	7.8	2500
8	Manchester ...	70	1000.7	-6	WSW	6	pr	53	85	6	8	-	-	9	9	1500
10	Spurn Head ...	29	999.2	-26	SW	5	bcq	52	85	7	4	8	-	4-6	4-6	2500
	Catterick ...	175	995.1	-28	SW	5	c	52	85	7	6	-	-	7-8	7-8	1500
	Tynemouth ...	108	993.7	-28	W	5	bc	52	85	7	2	-	-	2-3	2-3	2500
11	St. Abbs Head	280	989.5	-22	WSW	6	c	52	97	8	3	6	-	4-6	7-8	2500
	Leuchars ...	36	989.1	-22	SW	3	c	52	85	7	5	-	-	7-8	7-8	4000
12	Renfrew (Abbots I.)	19	991.0	-10	WNW	3	ir	50	92	6	5	-	-	10	10	1500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	995.6	-4	NW'W	8	c	51	92	7	8	1	-	7-8	10	1500
13A	Tiree ...	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	994.0	+6	NNW	4	c/pr	46	85	7	5	2	-	9	10	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	988.9	-16	WSW	4	fofo	46	97	7	5	7	-	7-8	10	1500
16	Lerwick ...	156	988.9	-24	S'W	3	dd	47	97	6	5	2	-	7-8	10	450
17	Blacksod Point	18	1007.9	+40	WNW	6	cq	47	75	8	9	-	-	7-8	7-8	1500
18	Malin Head ...	84	999.7	+62	NW	5	rr	47	85	5	9	-	-	9+	9+	1500
	Aldergrove ...	268	999.8	+62	W	5	c	47	85	7	2	-	-	9+	9+	2500
19	Birr Castle ...	173	1008.6	+42	SSE	4	c	47	85	8	5	-	-	9	9	2500
20	Valentia Obsy.	30	1015.0	+34	WNW	5	bc/ph	48	75	8	*	-	-	4-6	4-6	2500
	Roches Point	22	1012.3	+18	WNW	5	bc	49	85	8	5	-	-	4-6	4.6	2500

OBSERVATIONS at 7 hr. G.M.T. 2nd December — PAST 24 HOURS.

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Med. (24)	High (25)	Amount Low 0–10 (26)	Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Temperature Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Night 18h–7h mm. (35)	Sunshine 1st Hrs. (36)
London (Kew)	1011.2	+24	W	5	bc	51	75	8	5	-	-	2-3	2.3	1500	1	*	55	51	46	Tr	Tr	0.7
Croydon	1011.5	+22	WSW	4	bc	51	75	7	5	4	-	4-6	4-6	2500	1	*	54	51	48	Tr	0.1	0.0
S. Farnborough	1012.0	+22	WSW	4	zo	49	85	6	5	-	-	2-3	2.3	2500	1	*	54	49	45	Tr	0.3	0.1
Boscombe Down	1013.3	+26	W'S	4	bc	46	85	7	5	-	-	2-3	2-3	2500	1	*	54	45	42	Tr	1	0.0
Calshot (Sthmtn.)	1013.7	+22	W'N	4	c	49	85	7	5	-	-	9	9	2500	1	2	55	48	46	0.5	0.5	0.1
Lympne	1011.8	+18	W	4	b	49	75	8	5	-	1	Tr	1	1500	1	§ 3	53	49	43	0.1	1	0.1
Manston	1010.5	-26	WNW	4	bc	50	97	7	5	3	-	1	2-3	2500	1	*	56	50	46	Tr	0.2	2.2
Shoeburyness	1009.8	+24	W'S	6	b	56	55	7	-	4	-	0	Tr	-	1	*	57	56	43	—	Tr	2.0
Felixstowe	1008.1	+22	W'S	5	b	51	65	8	8	-	-	1	1	2500	1	3	56	51	46	1	0.6	0.0
Gorleston	1005.8	+6	WSW	5	c	53	75	6	5	-	-	9	9	2500	0	3	56	53	53	—	Tr	*
Mildenhall	1007.2	+28	WSW	6	bc	48	85	7	5	4	-	2-3	2-3	4000	1	*	57	48	45	—	Tr	0.4
Cranwell	1005.3	+30	W	6	c	49	75	7	8	3	-	7-8	7-8	800	0	*	57	49	47	—	Tr	0.0
Birmingham	1010.2	+30	W	4	bc	45	75	8	5	-	-	2-3	2-3	1500	1	*	55	45	42	—	1	0.0
Upper Heyford	1010.8	+26	W'N	3	bc	47	75	8	5	4	-	2-3	4-6	1500	1	*	53	46	41	Tr	0.5	*
Ross-on-Wye	1012.7	+34	W	3	c	47	65	8	5	-	-	7-8	7-8	2500	1	*	55	46	40	0.3	0.3	0.0
Hartland Point	1015.3	+18	NW	4	c	49	75	8	8	-	-	7-8	7-8	2500	1	4	54	48	45	1	0.2	0.0
Bristol	1013.8	+30	W	5	b	46	75	8	1	-	-	1	1	4000	2	*	55	46	41	Tr	2	0.0
Portland Bill	1013.6	+8	WNW	6	c	53	92	7	5	-	-	10	10	4000	1	5	56	51	*	0.6	0.2	*
Plymouth	1016.8	+18	NW'N	3	bc	48	85	8	2	-	-	2-3	2-3	2500	1	4	55	47	45	1	1	0.0
The Lizard	1018.2	+20	W	6	bc	49	75	8	8	-	-	2-3	2-3	2500	1	3	54	48	*	1	Tr	0.0
Scilly (St. Mary's)	1019.0	+18	NW'W	5	bc	48	75	8	8	-	-	4-6	4-6	2500	1	3	54	48	*	0.4	1	0.0
Guernsey	1017.1	+6	WNW	3	bc	52	75	7	2	7	9	2-3	4-6	1500	1	4	56	51	47	0.3	1	2.4
Pembroke	1015.2	+22	NW'N	5	bcq	48	75	7	8	-	-	4-6	4-6	2500	1	3	54	48	*	3	2	0.0
Holyhead	1009.9	+40	W'N	7	bc	48	75	8	8	-	-	2-3	2-3	2500	1	4	54	47	45	4	0.2	0.0
Chester (Sealand)	1008.7	+34	W	5	c/r	47	75	7	5	-	-	9	9	1500	1	*	60	46	43	Tr	1	3.5
Manchester	1006.4	+20	WNW	6	bc/pr	46	85	7	8	-	-	2-3	2-3	1500	1		57	45	42	3	1	0.0
Spurn Head	1001.6	+36	W'N	7	bcq	49	75	7	8	-	-	4-6	4-6	2500	0	4	55	49	*	Tr	-	0.0
Catterick	1001.9	+50	W'N	4	bc	48	75	7	5	-	-	4-6	4-6	1500	1	*	56	47	42	0.1	Tr	0.0
Tynemouth	998.4	+54	W	6	cq	47	85	7	2	-	-	7-8	7-8	2500	1	2	58	47	42	—	Tr	*
St. Abbs Head	995.3	+54	WNW	8	c/r	47	75	8	5	2	-	7-8	10	1500	1	4	57	44	*	Tr	3	*
Leuchars	996.2	+42	W	5	c	47	75	7	5	1	-	2-3	7-8	2500	1	*	55	47	44	3	6	0.0
Renfrew (Abbots I.)	1002.0	+48	W'N	5	iro	50	85	7	5	-	-	9+	10	1500	1	*	55	45	41	2	7	0.0
Eskdalemuir	1001.0	+38	WNW	7	c/pr	43	85	8	5	-	-	7-8	7-8	800	1		56	42	41	4	12	0.0
Point of Ayre	1005.8	+36	NW'W	7	bc	46	92	8	8	-	-	2-3	2-3	2500	1	4	58	46	*	2	1	0.0
Tiree	1012.8	+24	WNW	5	pr	44	86	7	8	-	-	7-8	7-8	1500	1	4	53	42	40		8	0.0
Stornoway	997.7	+22	WNW	5	c/phr	45	75	7	5	-	-	4-6	10	2500	1	3	47	42	*	0.3	2	0.0
Dalwhinnie	*	+40	W	3	ir	40	85	7	6	2	-	4-6	10	2500	1	*	51	39	37	0.4	14	0.1
Aberdeen	992.6	+28	NW	6	c	47	75	6	5	1	-	7-8	9	1500	1	2	49	45	39	0.1	11	0.5
Wick	990.8	+20	NW	6	c/pr	47	92	7	5	2	-	7-8	10	800	1	3	48	43	*	2	1	*
Lerwick	987.4	0	NW	4	dd	46	97	7	5	2	-	7-8	10	800	1	*	47	44	*	Tr	1	0.1
Blacksod Point	1011.7	+16	WNW	5	cq	46	75	8	3	-	-	7-8	7-8	1500	0	4	56	44	*	9	1	*
Malin Head	1005.9	+22	NW	5	bc	45	75	8	2	-	4	4-6	4-6	4000	1	4	56	42	*	6	7	0.0
Aldergrove	1007.5	+30	W'S	4	b	41	85	7	2	-	-	1	1	2500	1	*	55	41	34	4	1	0.0
Birr Castle	1013.5	+18	NNE	2	c	42	85	8	3	7	-	2-3	9	1500	1	*	57	41	38	2	0.4	0.1
Valentia Obsy.	1016.4	0	WSW	4	c	49	75	8	8	-	-	7-8	7-8	2500	1	4	56	40	40	8	3	0.1
Roches Point	1016.6	+14	WNW	3	bc	44	92	8	5	-	-	2-3	2-3	2500	1	4	55	43	*	10	0.4	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning	Afternoon	Night	Temperature Day Max. °F.	Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	9h. G.M.T. % (To-day)	Visibility 9h.
		24 hrs. ended 9h.											
Kew	18	cmoc	ccmodo mo	cidcmobo	55	51	46	Tr	Tr	0.7	*	*	
Croydon	217	cmocdo	cprodomo	odrocmfo	54	51	48	Tr	0.1	0.0	*	*	
Greenwich (Royal Observatory)	149	c	cdoc	cdoc	55	48	43	Tr	Tr		81	70	6
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	57	49	44	-	-		92	73	*
Regents Pk. (Botanic Gardens)‡	163	*	*	*	56	48	43	-	-	0.0	84	71	*
Camden Square	110	bc	o	*	55	48	42	-	-	*	*	76	*
Kensington	80	bcc	c	*	57	48	41	-	-		84	73	*
Hampstead Observatory	450	bc	bc	bc	54	45	42	-	-		*	85	*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 2nd

South Kensington Max.	Time.	Min.	Time.

Kew Observatory Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 1st December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 2nd December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Night mm.
Paris	1023.5	S	5	b	52	1017.3	WSW	6	c	54	54	50	-	-
Brussels														
Berlin														
Zürich														
Rome	1024.1	SSW	1	bc	57	1022.6	ENE	2	czo	45	*	*	-	-

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22.—Code for surface visibility.

Code		Objects not visible at
0	Dense fog	55 yards.
1	Thick fog	220 ,,
2	Fog	550 ,,
3	Moderate fog	1,100 ,,
4	Mist or haze	1¼ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6¼ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30.—Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

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AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Sunday 3rd December 1939.

No. 28,500

OBSERVATIONS at 13h. G.M.T. 2nd December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Med. (10)	High (11)	Amount Low 0–10 (12)	Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1015.7	+6	WNW	4	bc	50	65	7	7	3	6	2-3	4-6	2500
	Croydon	1015.6	+6	W	3	c	50	55	8	1	3	5	2-3	7-8	4000
	S. Farnborough	1016.5	+8	W'S	4	c	50	55	8	1	3	9	1	7-8	4000
	Boscombe Down	1016.8	+10	W'N	4	c	48	65	8	1	4	8	1	7-8	2500
	Calshot (Soton.)	1017.4	+14	WNW	4	bc	50	65	8	5	3	4	1	4-6	2500
	Lympne	1016.5	+16	W'N	4	c	50	55	8	1	5	9	Tr	7-8	2500
	Manston	1015.3	+18	WNW	5	z$_o$	49	65	6	1	3	2	Tr	7-8	2500
2	Shoeburyness	1014.6	+14	W	6	bc	52	55	7	1	9	-	1	2-3	2500
	Felixstowe	1013.3	+18	W'N	5	bc	50	65	8	1	3	1	2-3	4-6	2500
	Gorleston	1011.4	+10	W'S	5	bc	50	65	6	5	-	-	2-3	2-3	2500
	Mildenhall	1012.7	+14	W	5	bc	49	65	8	1	4	-	4-6	4-6	2500
	Cranwell	1011.5	+18	WNW	4	b	47	75	8	1	-	-	Tr	Tr	2500
3	Birmingham	1013.8	+14	WNW	5	bc	48	55	8	8	-	-	4-6	4-6	2500
	Upper Heyford	1015.2	+14	W'N	4	bc	49	65	8	1	-	9	1	4-6	4000
4	Ross-on-Wye	1015.1	+4	W	4	bc	51	55	8	2	-	-	4-6	4-6	4000
5	Hartland Point	1017.2	-4	NW	4	c/pr	48	85	8	8	7	-	4-6	7-8	2500
	Bristol	1017.1	+10	W	4	bc	48	75	8	8	3	1	2-3	4-6	2500
	Portland Bill	1018.2	+18	W	6	c	51	92	8	1	4	-	4-6	7-8	4000
	Plymouth	1019.8	+6	WNW	3	bc	53	65	8	7	4	-	4-6	9+	2500
	The Lizard	1020.8	+2	W	5	bc	52	75	8	8	6	-	4-6	4-6	2500
	Scilly (St. Mary's)	1020.6	-4	W'N	5	c/pr	47	85	8	8	6	3	4-6	7-8	1500
	Guernsey	1020.2	+10	W'N	2	c	52	65	7	2	8	-	2-3	9	2500
6	Pembroke	1016.4	+2	WNW	7	pr	50	85	7	8	-	-	9+	9+	2500
7	Holyhead	1012.7	+6	W	6	c	48	65	8	2	3	-	7-8	7-8	2500
	Chester (Sealand)	1012.9	+10	W	5	c	48	65	7	8	3	-	7-8	7-8	1500
8	Manchester	1011.7	+14	W	5	pr	47	75	7	8	3	-	9	9+	1500
10	Spurn Head	1007.4	+26	W'N	8	bcq	48	65	6	-	8	-	0	2-3	—
	Catterick	1008.1	+24	W	5	b	47	65	8	3	-	-	1	1	2500
	Tynemouth	1005.9	+28	W	6	bcq	46	65	8	5	6	-	2-3	4-6	2500
11	St. Abbs Head	1002.6	+28	W	7	cq	44	75	8	5	6	-	4-6	9	2500
	Leuchars	1002.6	+22	W	4	c	45	75	9	8	7	6	1	9	4000
12	Renfrew (Abbots I.)	1006.9	+20	W	4	c/pr	41	85	7	9	3	3	7-8	7-8	1500
	Eskdalemuir	1005.4	+14	W'N	5	c/r	38	85	8	5	2	-	2-3	9	1500
	Point of Ayre	1010.7	+16	NW'W	7	bc	47	75	8	8	4	-	2-3	2-3	2500
13A	Tiree	1007.2	+20	NW	6	bc/phr	46	65	7	8	-	-	4-6	4-6	1500
13B	Stornoway	1003.2	+20	NW	5	c	44	75	8	3	-	-	7-8	7-8	2500
15	Dalwhinnie	1004.4	+20	W	3	c	38	85	7	8	6	1	4-6	7-8	2500
	Aberdeen	999.9	+26	WNW	5	c	45	75	8	5	7	-	Tr	9+	4000
	Wick	997.7	+22	NW	6	c/pr	45	85	8	5	7	-	7-8	9+	800
16	Lerwick	991.0	+26	NW	5	c/r	45	92	7	8	7	-	7-8	10	800
17	Blacksod Point														
18	Malin Head	1007.8	+18	NW	5	c	46	65	8	8	7	-	4-6	7-8	2500
	Aldergrove	1011.8	+14	WSW	4	c	43	75	8	3	-	2	4-6	7-8	2500
19	Birr Castle	1016.8	+12	W	1	bc	48	75	8	5	-	4	2-3	4-6	2500
20	Valentia Obsy. †	1020.3	+18	NWW	4	bc	49	65	9	2	-	-	4-6	4-6	2500
	Roches Point	1018.2	+4	WNW	3	bc	48	85	8	3	-	3	2-3	2-3	1500

OBSERVATIONS at 18h. G.M.T. 2nd December — PAST 24 HOURS.

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Force 0–12 (18)	Weather (19)	°F Temp. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Med. (24)	High (25)	Amount Low 0–10 (26)	Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.–13h. 2nd (37)	13h.–18h. 2nd (38)	18h. 2nd to 1h. 3rd (39)	1h.–7h. 3rd (40)
London (Kew)	1016.2	+2	WSW	4	z$_o$	48	75	6	5	-	-	9+	9+	2500	1	*	bbc	bccz$_o$	cz$_o$xbm$_o$bx	bbcx
Croydon	1016.5	+8	WSW	4	z$_o$	47	75	6	5	-	-	2-3	2-3	4000	1	*	bcbbc	bcyz$_o$	cprz$_o$b	bbc
S. Farnborough	1016.7	+6	SW'W	4	bc	44	75	7	5	4	-	2-3	2-3	4000	1	*	bbccy	bccir$_o$bc	bcbm$_o$w	bwbc
Boscombe Down	1017.6	+10	W'S	3	z$_o$	42	92	6	5	-	-	2-3	2-3	1500	1	*	bbc	bcprbcb	bm$_o$b	bc
Calshot (Soton.)	1017.7	+4	W'S	2	bcq	44	85	6	8	-	-	4-6	4-6	1500	1	2	cbcb	m$_o$prqbc	bcbbm$_o$	bm$_o$bcc
Lympne	1017.6	+6	SW'W	3	b	40	85	7	8	1	-	0	1	—	1	§3	bbc	c,b	bw	bwm$_o$bbcx
Manston	1016.2	+6	W'S	3	z$_o$	42	85	6	5	-	-	4-6	4-6	4000	1	*	bbcz$_o$	bcz$_o$bcm$_o$	cpr$_o$bw	bm$_o$wbx
Shoeburyness	1015.9	+4	W'S	4	c	47	75	5	-	7	-	0	7-8	—	1	*	bbc	bcbm$_o$	bw	bm$_o$bx
Felixstowe	1014.0	+6	WSW	5	b	45	75	7	4	-	-	1	1	4000	1	3	bc	bcb	bbm$_o$	bm$_o$
Gorleston	1012.9	+8	WSW	3	bc	45	75	6	5	-	-	4-6	4-6	2500	0	2	cbcq	bcq	bcblbc	bw
Mildenhall	1014.2	+12	W'S	4	bc	44	85	8	5	-	-	4-6	4-6	4000	1	*	b,cbc	bc	bcbm$_o$	bcbcw
Cranwell	1012.8	+10	W'N	3	bc	41	85	7	8	-	-	2-3	2-3	2500	1	*	cm$_o$pr$_o$b	bpr$_o$b	bbwm$_o$	bwbm$_o$bbc
Birmingham	1015.0	+6	WSW	2	b	42	75	8	-	-	-	0	0	—	1	*	bc	bccpbbc	bcc	bcc
Upper Heyford	1016.2	+8	W	2	b	40	92	8	8	-	-	Tr	Tr	2500	1	*	bcbbc	bcPRbc	b	bbcx
Ross-on-Wye	1016.7	+8	W'S	2	b	43	85	8	-	-	-	0	0	—	1	*	bcbbc	bcp$_o$cpb	b	bwbcc
Hartland Point	1018.6	+12	NW	4	c	48	75	8	8	7	-	4-6	7-8	2500	1	4	cp$_o$	cp$_o$	cbc	bccp
Bristol	1017.4	+6	WSW	3	bc	43	85	7	8	-	-	2-3	2-3	2500	r	*	bbc	bcpr$_o$bc	bw	bbcwcr$_o$
Portland Bill	1019.4	-16	W	4	bc	48	92	7	5	-	-	4-6	4-6	4000	1	4	c	cprbc	b	cbc
Plymouth	1019.7	+8	WNW	3	pr	47	85	7	3	-	-	7-8	7-8	1500	1	2	bc	bccpbPR	cpr$_o$bbc	bcb,cw
The Lizard	1020.9	+6	W	5	bc	49	75	8	8	-	-	4-6	4-6	2500	1	3	bc	prcbc	bbc	prcbc
Scilly (St. Mary's)	1021.5	+10	NW'W	5	bc	48	75	8	8	-	-	4-6	4-6	1500	1	3	bccpq	cpqbc	bc	bcpq,c
Guernsey	1020.1	+2	W'N	1	pr	50	65	7	8	-	-	9	9	1500	1	3	bcpr$_o$	bccpr	cprbc	bccpr
Pembroke	1018.9	+14	SW'W	6	bcq	48	75	7	8	-	-	2-3	2-3	2500	1	3	bcqprc	cbcq	bcq	bccprq
Holyhead	1015.2	+18	WW	6	c	48	75	8	2	-	-	7-8	7-8	2500	1	4	bcc	cbc	bc	bcc
Chester (Sealand)	1014.5	+14	W	3	bc/pr	45	75	7	8	-	-	4-6	4-6	2500	1	*	cpr$_o$c	cpr$_o$bcpr	bcpr$_o$b	bz$_o$,cbccw
Manchester	1013.8	+14	W	4	b	43	75	7	2	-	-	1	1	2500	1	*	ccpr$_o$bcc	bbcPRqb	bbcqpr$_o$pr	bbcpr$_o$c
Spurn Head	1010.3	+16	W	6	bc	44	75	6	-	8	-	0	2-3	—	1	3	bcq	bc	bcb	bbc
Catterick	1009.7	+6	WNW	4	bc	41	75	7	2	3	-	2-3	4-6	1500	1	4	bcb	qPRbc	b	bcbcx
Tynemouth	1007.9	+10	W	5	bc	42	75	7	2	-	-	4-6	4-6	2500	1	2	cbcq	bcq	bc	bc
St. Abbs Head	1005.4	+14	WNW	6	bcq	43	75	7	4	4	-	4-6	4-6	2500	0	4	cq	cbcq	b	bbcc
Leuchars	1006.5	+30	W	3	b	41	75	9	4	-	-	Tr	Tr	5700	1		pr$_o$c	cbcb	bw	b,cw
Renfrew (Abbots I.)	1009.9	+24	WSW	3	z$_o$	41	85	6	8	-	-	4-6	4-6	2500	1	*	ir$_o$prpr	cpr$_o$bc	bm$_o$cpr$_o$	bccpr$_o$
Eskdalemuir	1008.7	+20	WNW	6	b	39	75	8	5	-	-	1	1	1500	1	*	pr$_o$bcprscr	prsbcb	b	bcc
Point of Ayre	1012.7	+12	NW'W	6	bc	46	85	8	8	-	-	4-6	4-6	2500	0	4	bc	cbc	b	bcc
Tiree	1009.5	+10	NW'W	5	bc	46	75	8	8	-	-	4-6	4-6	1500	0	5	cphrq	bcprq	bcphr	cir
Stornoway	1006.3	+20	WNW	3	bc/pr	41	85	7	8	7	-	4-6	4-6	2500	1	2	cphrq	cPR	bcPR	bccPR
Dalwhinnie	1008.5	+20	W	3	s	37	92	7	3	4	-	2-3	2-3	2500	1	*	cirsrs	csrs	**	cir
Aberdeen	1004.0	+26	WNW	4	b	41	85	8	-	3	-	0	Tr	—	1	2	cir$_o$c	c	bx	bbccx
Wick	1002.3	+22	NW	5	PHR	42	85	7	3	7	-	4-6	7-8	1500	1	3	prpr$_o$	PHRq	cprbc	bcc
Lerwick	996.8	+28	NW	6	bc	43	85	8	8	-	-	4-6	4-6	1500	1	*	cddir	cprbc	bcpr	bccpr
Blacksod Point	1016.4	+6	WW	1	bc	46	85	8	3	-	-	4-6	4-6	1500	0	3		bc	bc	phcq
Malin Head	1012.0	+10	WNW	4	bc	45	75	7	8	-	-	4-6	4-6	4000	0	4	cPHRc	cprcphrc	bccprc	cbcc
Aldergrove	1014.1	+10	WSW	3	bc/pr	40	92	8	8	-	-	2-3	2-3	2500	1	*	bbccbc	bcprPR	bcbbc	bcc
Birr Castle	1018.5	+12	W	1	b	42	85	8	-	-	-	0	0	—	1	*	phrbc	b	bbcc	c
Valentia Obsy. †	1021.6	+6	WNW	4	b	48	65	8	2	4	-	1	1	2500	1	3	cbc	cpr$_o$bcb	bcprpr$_o$bbc	bccpr$_o$prpr$_o$c
Roches Point	1020.9	+20	WNW	3	b	45	85	8	5	-	-	1	1	2500	1	3	prbc	bcb	bbc	bccir

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_o$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_o$/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r$_o$, slight rain. rr, continuous rain.
<, less than (for cloud height). ⁄gale.
⊕ Solar halo. ⊕ lunar halo. Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.

An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.

"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.

"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:— Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

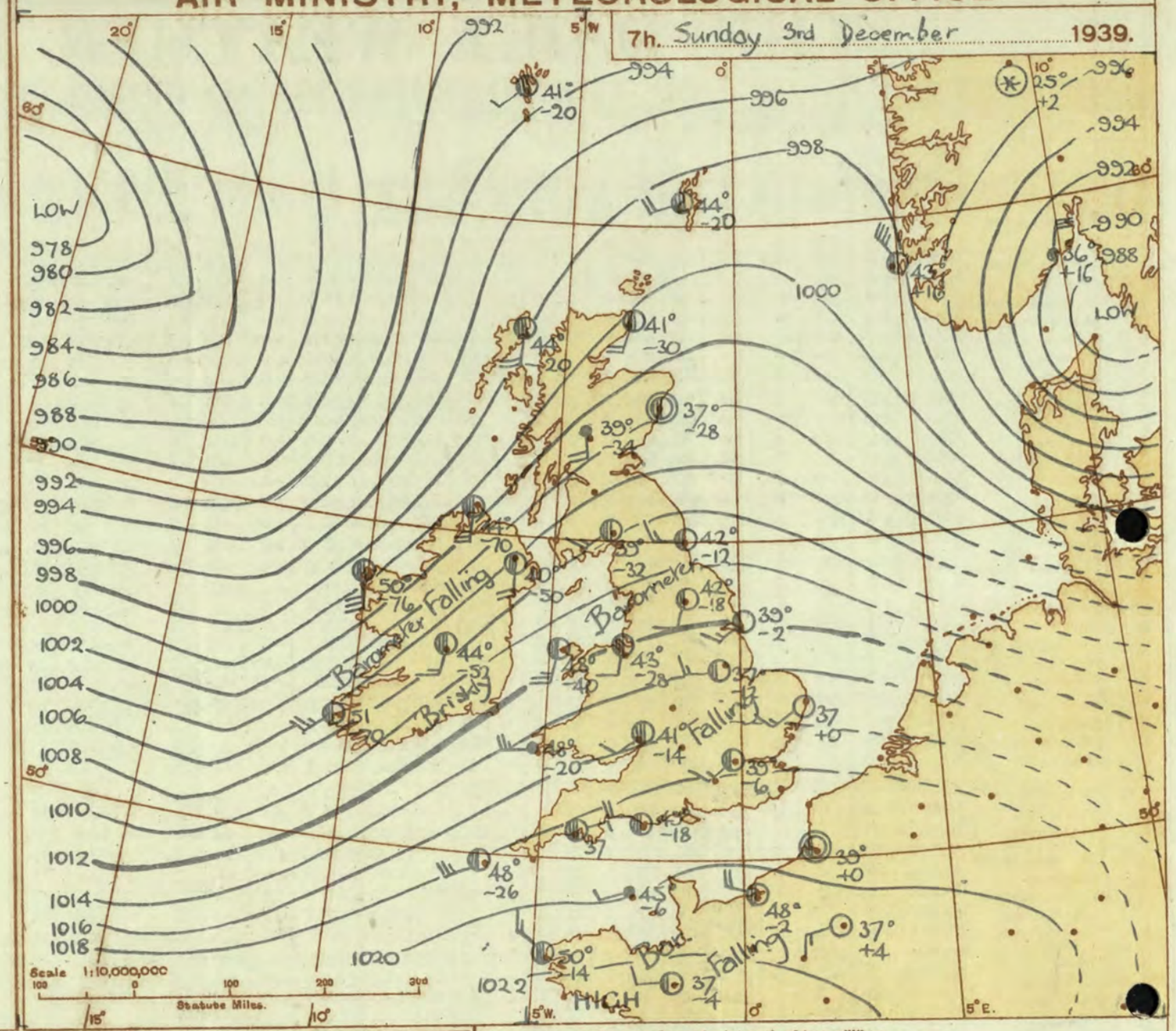
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. „ wet.
2 .. „ flooded.
3 .. „ frozen hard and dry.
4 .. „ partly covered with snow or hail.
5 .. „ covered with ice or glazed frost.
6 .. „ covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. „ covered with snow, less than 6 ins., but ground frozen.
9 .. „ covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Sunday 3rd December 1939.



BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 3rd December, 1939.
1 S.E. England V 2 E. England ... V 3 E. Midlands ...	Wind southwest increasing strong to gale on coasts, veering west, squally by tomorrow; cloud increasing, rain this evening, bright periods with local squally showers tomorrow; average to rather low temperature.
4 W. Midlands ... 5 S.W. England V 6 South Wales ... V 7 North Wales ... V 8 N.W. England V	Wind southwest veering west, strong, gale on coasts, becoming squally; cloudy, rain this afternoon, then bright periods, squally showers of rain and hail; rather cold.
9 N. Midlands ... 10 N.E. England V 11 S.E. Scotland V	Wind south increasing fresh to strong, gale locally on coast, veering southwest; becoming cloudy, some rain this evening, then squally showers of rain and hail; rather cold.
12 S.W. Scotland & Isle of Man. V 13 A. W. Scotld. V 13 B.N.W.Scotland. V 14 Mid Scotland	Wind south, strong to gale, veering southwest to west, squally; cloudy, some rain, then brighter periods with squally showers of rain and hail; snow on Hills; rather cold.
15 N. E. Scotland V 16 Orkneys and Shetlands	Wind rather variable, moderate to strong, squally; cloudy, occasional rain, hail or sleet; cold.
17 N. W. Ireland V 18 N. E. Ireland V 19 S. E. Ireland V 20 S. W. Ireland V	Wind veering west, strong to gale on coasts, very squally; rain early in the East; otherwise bright intervals, squally showers of rain and hail; rather cold.

GENERAL INFERENCE.

A vigorous trough of low pressure just west of Ireland will move quickly eastwards across the country causing stormy conditions with a period of rain followed by squally showers and a further fall in temperature, especially in the North.

FURTHER OUTLOOK.

Continuing very unsettled.

Times of Issue of Gale Warnings.

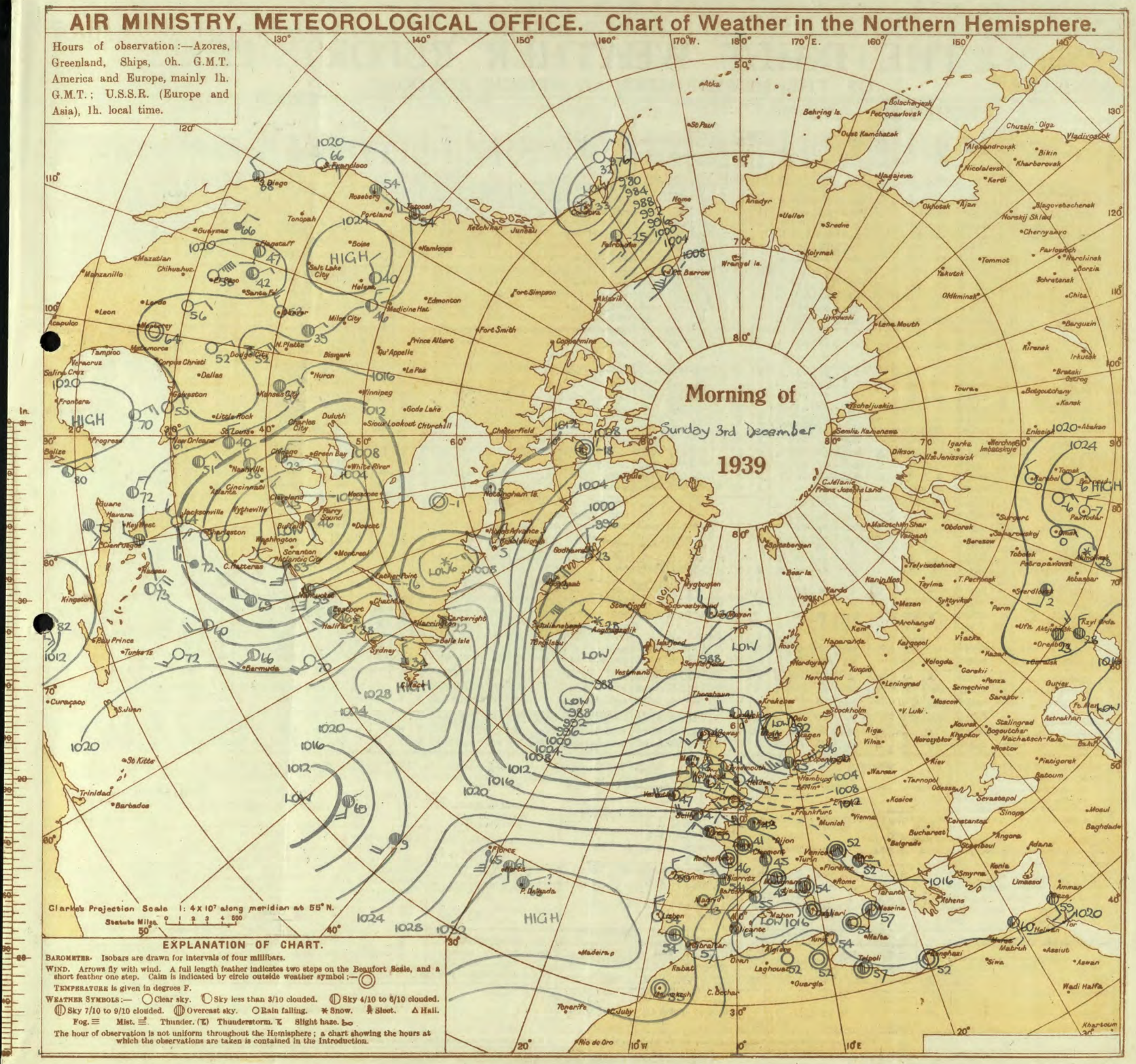
South Cone hoisted at 0500h on 3rd in districts 13A, 13B, 17, 18, 18 and part of 20; at 0750 on 3rd in districts 5, 6, 7, 8, 12, 18, and part of 19, and at 1100 on 3rd in districts 1,2,10,11 and 14

Forecasts issued at 1100 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Sunday 3rd December, 1939.

No. 28,500

OBSERVATIONS at 1 hr. G.M.T. 3rd December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1018·5	+2	WSW	3	b	39	85	7	-	-	-	0	0	-
	S. Farnborough	226	1018·7	+2	SW'W	3	zo	39	85	6	-	-	-	0	0	-
	Boscombe Down	417	1019·3	+2	W'N	3	b	38	92	7	-	-	-	0	0	-
	Calshot (Sthmtn.)	8	1019·5	+6	W'N	3	zo	40	92	6	-	-	-	0	0	-
	Lympne ...	346	1018·2	+6	WNW	3	b	38	85	7	-	-	-	0	0	-
	Manston ...	154	1017·2	+2	WNW	4	zo	40	92	6	-	-	-	0	0	-
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1015·5	+2	WSW	3	b	41	85	6	-	-	-	0	0	-
	Gorleston ...	5	1013·9	+6	W	4	bc	40	85	6	5	-	-	2·3	2·3	2500
	Mildenhall ...	19	1015·6	+4	WSW	4	zo	36	92	6	-	-	-	0	0	-
	Cranwell ...	240	1014·6	+6	W	3	zo	39	92	6	-	-	-	0	0	-
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1018·3	+6	W'S	2	b	37	92	7	-	-	-	0	0	-
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1020·4	+2	NW	3	bc	47	75	8	2	-	-	4·6	4·6	4000
	Bristol ...	209	1019·6	+4	W	3	b	41	85	6	-	-	-	0	0	-
	Portland Bill ...	32	1019·8	+8	NW	4	b	47	92	8	-	-	-	0	0	-
	Plymouth ...	82	1021·7	0	WNW	1	bc	44	85	7	-	3	-	0	2·3	-
	The Lizard ...	240	1022·6	-6	-	0	bc	47	75	8	8	6	-	4·6	4·6	2500
	Scilly (St. Mary's)	163	1022·8	-8	WNW	4	bc	47	75	8	2	-	-	2·3	4·6	2500
	Guernsey ...	175	1021·4	+4	NW'W	1	bc	47	75	9	2	3	-	2·3	2·3	2500
6	Pembroke ...	142	1019·0	-2	WNW	5	bcq	49	75	8	5	6	-	4·6	4·6	2500
7	Holyhead ...	26	1015·9	-6	W	5	bc	47	75	8	2	-	-	4·6	4·6	2500
	Chester (Sealand)	16	1006·0	0	W'S	3	bc	44	75	7	5	-	-	2·3	2·3	2500
8	Manchester ...	70	1015·5	+2	W'N	3	bc	40	92	7	2	-	-	2·3	2·3	2500
10	Spurn Head ...	29	1012·4	+8	W'N	5	b	41	85	6	-	-	-	0	0	-
	Catterick ...	175	1012·3	+2	W'N	3	b	40	85	7	-	-	-	0	0	-
	Tynemouth ...	108	1010·9	+6	W	3	bc	41	85	7	5	-	-	2·3	2·3	1500
11	St. Abbs Head	280	1008·6	+6	WNW	6	b	43	75	8	-	-	-	0	0	-
	Leuchars ...	36	1008·1	-6	W	3	b	40	85	8	-	-	1	0	1	-
12	Renfrew (Abbots I.)	19	1011·1	-6	WSW	2	c/pr	40	92	8	8	3	-	2·3	4·6	2500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	1014·4	+4	WNW	5	b	45	85	8	5	-	-	Tr	Tr	2500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1006·4	-8	SSW	3	bc	43	85	7	5	-	-	2·3	2·3	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1004·6	0	W	4	bc	39	92	8	8	-	-	2·3	2·3	1500
16	Lerwick ...	156	1000·6	+8	WNW	4	bc	41	97	8	8	7	-	4·6	4·6	1500
17	Blacksod Point	18	1011·7	-22	W	4	c	49	75	8	9	-	-	7·8	7·8	1500
18	Malin Head ...	84	1010·7	-16	S	2	c	43	85	8	8	-	4	4·6	7·8	4000
	Aldergrove ...	268	1014·2	-6	S'W	3	bc	38	97	8	5	4	-	4·6	4·6	2500
19	Birr Castle ...	173	1016·7	-14	SW	1	c	40	92	8	5	-	-	7·8	7·8	2500
20	Valentia Obsy.	30	1018·2	-30	SW	4	c	47	75	8	8	-	-	7·8	7·8	2500
	Roches Point	22	1020·0	-18	W'N	3	bc	42	85	8	5	-	5	2·3	4·6	2500

OBSERVATIONS at 7 hr. G.M.T. 3rd December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
1	London (Kew)	1017·4	-8	SW'S	2	bc	40	92	8	-	-	4	0	4·6	-	1	*
	Croydon ...	1017·9	-6	SW	3	bc	39	85	7	-	3	-	0	2·3	-	1	*
	S. Farnborough	1018·0	-10	SW'S	3	c	37	92	8	-	3	-	0	7·8	-	1	*
	Boscombe Down	1017·7	-14	SSW	2	c	36	92	7	5	1	-	Tr	9	4000	1	*
	Calshot (Sthmtn.)	1018·1	-14	WSW	3	c	39	85	7	8	1	-	1	7·8	2500	1	2
	Lympne ...	1018·5	-6	WNW	3	bc	35	92	8	-	-	2	0	4·6	-	1	§2
	Manston ...	1017·2	-6	WSW	2	bc	35	97	7	-	3	1	0	2·	<150	1	*
2	Shoeburyness ...	1016·9	-8	W'N	3	b	40	85	5	-	4	1	0	1	-	1	*
	Felixstowe ...	1016·3	+4	W	3	zo	38	92	6	-	3	-	0	4·6	-	1	3
	Gorleston ...	1014·6	0	SW'W	3	b	37	85	7	-	-	-	0	0	-	0	2
	Mildenhall ...	1015·0	-10	SW	4	zo	36	92	6	5	3	4	2·3	4·6	4000	1	*
	Cranwell ...	1013·7	-12	W'S	3	bc	37	97	7	-	4	4	0	4·6	-	0	*
3	Birmingham ...	1015·1	-12	SW	3	c	38	92	8	-	-	8	0	9	-	1	*
	Upper Heyford	1017·0	-14	S'W	2	c	34	97	6	-	4	6	0	7·8	-	1	*
4	Ross-on-Wye	1015·6	-14	SW	2	c	41	85	8	-	7	2	0	9	-	1	*
5	Hartland Point	1015·8	-30	W	4	r	48	85	8	6	2	-	4·6	9	2500	1	3
	Bristol ...	1016·7	-26	SSW	2	c/r	43	85	8	5	1	-	4·6	9+	2500	1	*
	Portland Bill ...	1018·4	-18	W	4	bc	49	92	8	5	-	-	4·6	4·6	4000	1	4
	Plymouth ...	1018·8	-26	E'N	1	c	37	97	7	2	3	6	2·3	9	2500	1	2
	The Lizard ...	1019·0	-24	W'S	3	bc	47	85	8	8	6	-	4·6	4·6	2500	1	3
	Scilly (St. Mary's)	1018·8	-26	SW'W	5	c	48	75	8	5	4	-	7·8	9+	1500	1	3
	Guernsey ...	1019·2	-6	WSW	1	pr	45	75	8	8	1	-	4·6	7·8	2500	1	3
6	Pembroke ...	1014·5	-20	W'S	5	r.r.	48	85	8	8	6	-	7·8	9+	1500	1	2
7	Holyhead ...	1010·9	-40	SSW	5	c	48	65	8	8	-	-	9+	9+	1500	1	3
	Chester (Sealand)	1013·2	-28	S'W	2	c	43	75	7	5	7	-	4·6	9	2500	1	*
8	Manchester ...	1012·8	-24	S	3	c	40	92	7	5	3	-	4·6	7·8	2500	1	*
10	Spurn Head ...	1012·2	-2	SW	3	bc	39	92	6	-	-	6	0	4·6	-	0	2
	Catterick ...	1010·2	-18	SSW	2	c	42	85	8	5	-	-	4·6	7·8	2500	1	*
	Tynemouth ...	1009·6	-12	W	3	bc	42	85	6	2	-	-	2·3	2·3	2500	1	2
11	St. Abbs Head	1005·7	-30	SW	4	c	39	92	8	4	6	-	4·6	7·8	2500	0	3
	Leuchars ...	1005·0	-30	SW	3	c	42	92	8	8	2	-	1	9+	4000	1	*
12	Renfrew (Abbots I.)	1005·7	-38	SSW	4	c/pr	44	85	7	8	-	-	Tr	9+	2500	1	*
	Eskdalemuir ...	1007·3	-32	SW'W	3	c	39	92	7	5	2	-	7·8	10	1500	1	*
	Point of Ayre...	1008·9	-32	WSW	3	pr	46	85	7	8	1	-	7·8	10	1500	1	2
13A	Tiree	998·9	-50	SSW	6	ir	46	92	7	6	-	-	9	9	1500	1	5
13B	Stornoway ...	998·4	-20	SSW	4	c/pr	44	85	7	8	7	-	7·8	10	2500	1	2
15	Dalwhinnie ...	1003·7	-34	S	4	ir	39	85	6	4	2	-	4·6	10	1500	1	*
	Aberdeen ...	1003·8	-28	-	0	c	37	85	8	5	-	-	9	9	5700	1	1
	Wick ...	1000·9	-30	SSW	4	c	41	92	8	5	1	-	9	10	1500	1	2
16	Lerwick ...	998·6	-20	WSW	4	c	44	85	8	8	7	-	4·6	7·8	1500	1	*
17	Blacksod Point	999·1	-76	S	7	cq	50	75	7	9	-	-	10	10	800	1	4
18	Malin Head ...	1000·1	-70	S	5	c	44	75	7	8	-	-	7·8	7·8	4000	0	4
	Aldergrove ...	1006·0	-50	S	4	c	40	92	7	5	3	-	7·8	9+	2500	1	*
19	Birr Castle ...	1006·9	-52	SSW	3	c	44	85	8	5	4	-	4·6	7·8	2500	1	*
20	Valentia Obsy.	1006·8	-70	SSW	5	c/pr	51	85	8	8	-	-	10	10	1500	1	4
	Roches Point	1010·5	-58	WSW	6	ir	50	92	8	6	1	-	7·8	9	1500	1	4

PAST 24 HOURS.

Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Temperature Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 2nd Hrs. (36)
London (Kew)	51	39	28	—	Tr	6·0
Croydon ...	52	37	33	—	Tr	5·8
S. Farnborough	50	35	30	Tr	-	6·3
Boscombe Down	49	33	30	2	Tr	5·4
Calshot (Sthmtn.)	51	37	33	0.5	-	6·0
Lympne ...	51	35	29	—	-	4·7
Manston ...	51	34	29	—	Tr	4·7
Shoeburyness ...	54	48	32	—	1	4·6
Felixstowe ...	51	37	33	—	-	4·9
Gorleston ...	53	37	35	—	-	*
Mildenhall ...	48	35	30	—	-	4·1
Cranwell ...	50	36	34	Tr	-	3·6
Birmingham ...	48	37	33	0.1	-	4·5
Upper Heyford	50	32	23	1	0·2	*
Ross-on-Wye	51	39	33	0.3	-	5·8
Hartland Point	56	45	42	3	0·6	2·7
Bristol ...	49	39	31	1	0·1	5·2
Portland Bill ...	54	46	*	3	-	*
Plymouth ...	52	37	32	1	Tr	4·2
The Lizard ...	52	45	*	1	Tr	3·8
Scilly (St. Mary's)	52	47	*	2	0·3	3·5
Guernsey ...	53	44	34	0.1	1	3·1
Pembroke ...	51	46		Tr	0·4	2·5
Holyhead ...	49	45	42	—	-	2·8
Chester (Sealand)	48	42	35	1	0·1	4·9
Manchester ...	48	37	29	0.2	1	2·6
Spurn Head ...	49	39	*	—	-	3·7
Catterick ...	48	38	30	2	-	5·2
Tynemouth ...	47	40	35	—	-	*
St. Abbs Head	50	38	*	—	-	*
Leuchars ...	47	37	27	0.1	-	0·5
Renfrew (Abbots I.)	45	37	33	2	1	0·0
Eskdalemuir ...	43	33	30	3	-	1·2
Point of Ayre...	48	48	*	—	-	4·1
Tiree	46	43	39	4	3	1·0
Stornoway ...	45	39	*	1	1	1·8
Dalwhinnie ...	40	33	29	1	0·3	0·0
Aberdeen ...	47	37	27	Tr	-	0·0
Wick ...	47	37	*	1	1	*
Lerwick ...	47	41	*	1	0·6	0·0
Blacksod Point	51	42	*	0.6	3	*
Malin Head ...	47	40	*	2	0·5	1·5
Aldergrove ...	47	36	30	3	-	2·3
Birr Castle ...	48	38	36	1	-	4·9
Valentia Obsy.	50	45	40	1	1	4·5
Roches Point	49	41	*	0·6	0·4	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather Morning. (24 hrs. ended 9h.)	Weather Afternoon. (24 hrs. ended 9h.)	Weather Night. (24 hrs. ended 9h.)	Temperature Day Max. °F.	Temperature Night Min. °F.	Temperature Min. on Grass °F.	Rainfall Day. mm.	Rainfall Night. mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity 15h. G.M.T. % (Yesterday.)	Humidity 9h. G.M.T. % (To-day.)	Visibility 9h. (To-day.)
Kew...	18	bbc	bczo	czbxbcx	51	39	28	-	Tr	6·0	•	•	5
Croydon	217	bcbbc	bcyzo		52	37	33	-	Tr	5·8	•	•	
Greenwich (Royal Observatory)...	149	bc	bcc	czcbxbcx	50	36	29	-	Tr	4·4	65	91	4
City (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park) ...	27	•	•	•	52	36	32		–		67	93	•
Regents Pk. (Botanic Gardens)‡...	168	•	•	•						2·7			•
Camden Square	110	bc	bc	•	51	37	30	-	-	•	•	93	•
Kensington	80	bc	bcx	•	51	36	26	-	0·1		65	91	•
Hampstead Observatory	450										•		•

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.
24 hrs. ended 7h. G.M.T. 3rd

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·1	20-22h 2nd.	<0·1	0-7h. 3rd.

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 2nd December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	7h. G.M.T. 3rd December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1020·1	WNW	4	bc	46	1021·1	WSW	3	zo	37	55	37	Tr	-
Brussels														
Berlin														
Zürich														
Rome	1002·1	-	0	c	52						•	•	-	

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1½ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

0 Calm.	5 Very rough.
1 Smooth.	6 High.
2 Slight.	7 Very high.
3 Moderate.	8 Preciptious.
4 Rough.	9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Monday 4th December, 1939.

No. 28501

OBSERVATIONS at 13h. G.M.T. 3rd December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1011·5	-50	SW'S	4	z_0	48	75	6	1	7	9	2-3	7-8	2500
	Croydon	1012·6	-38	SW'S	3	c	50	65	6	7	4	2	2-3	7-8	2500
	S. Farnborough	1012·0	-42	S'W	3	c	49	75	7	7	7	2	2-3	7-8	4000
	Boscombe Down	1010·4	-58	SSW	5	c	48	75	8	8	4	8	2-3	9	2500
	Calshot (Soton.)	1012·6	-40	SW'S	6	pr	50	75	7	8	7	6	7-8	9	1500
	Lympne ...	1014·6	-30	SSW	2	c	48	75	8	2	6	6	1	9	4000
	Manston ...	1013·7	-30	SW'W	3	c	46	75	7	2	7	6	1	9	2500
2	Shoeburyness ...	1012·9	-30	WSW	3	bc	48	75	7	-	7	-	0	4-6	-
	Felixstowe ...	1012·9	-26	SW'W	3	z_0	46	75	6	-	7	-	0	9	-
	Gorleston ...	1011·4	-20	SSW	4	c	45	75	7	-	7	-	0	7-8	-
	Mildenhall ...	1010·4	-36	SSW	4	c	47	75	7	-	1	8	0	7-8	-
	Cranwell ...	1007·2	-48	S'W	4	c	45	85	8	5	7	6	4-6	9	2500
3	Birmingham	1007·8	-46	SSW	4	c	44	85	7	5	7	8	4-6	9+	1500
	Upper Heyford	1011·0	-42	S'W	4	c	45	75	7	7	7	6	2-3	9	2500
4	Ross-on-Wye ...	1006·2	-60	S'W	5	cq	47	75	8	5	7	8	7-8	9+	2500
5	Hartland Point	1004·5	-80	WSW	5	c/pr	50	92	7	6	2	-	4-6	9+	2500
	Bristol	1009·3	-52	SSW	4	c	49	75	8	5	7	6	4-6	7-8	4000
	Portland Bill ...	1010·8	-50	SW	6	c	50	92	8	2	7	-	7-8	10	4000
	Plymouth ...	1010·2	-52	SW	7	c	52	75	7	5	2	-	4-6	10	1500
	The Lizard ...	1009·4	-50	S	7	c	51	92	8	8	2	-	7-8	9+	2500
	Scilly (St. Mary's)	1008·2	-62	SW'S	7	ir_0	51	85	6	8	7	-	7-8	9+	4000
	Guernsey ...	1014·4	-40	SW	3	pr	49	75	8	8	2	-	4-6	9	1500
6	Pembroke ...	1001·5	-54	SW'W	8	c/r	51	92	6	8	2	-	7-8	10	800
7	Holyhead ...	997·7	-78	S	6	ir	50	85	7	6	2	-	7-8	10	800
	Chester (Sealand)	1002·3	-70	SSW	5	c	50	65	8	5	2	-	7-8	9	2500
8	Manchester ...	1003·9	-50	S'E	4	c	45	75	7	5	1	-	4-6	10	2500
10	Spurn Head ...	1007·2	-28	S'W	4	c	46	75	7	-	4	3	0	7-8	-
	Catterick ...	1002·2	-54	S'E	4	z_0	44	85	6	5	7	-	7-8	9+	2500
	Tynemouth ...	1002·1	-48	S	4	z_0	45	75	5	8	3	1	4-6	7-8	2500
11	St. Abbs Head	997·1	-52	SSW	5	c	44	85	8	8	6	-	4-6	9	2500
	Leuchars ...	995·5	-62	SSE	4	c	46	85	8	8	7	6	2-3	9	4000
12	Renfrew (Abbots I.)	994·8	-52	S'W	4	r_0r_0	47	85	6	6	2	-	9+	10	1500
	Eskdalemuir ...	997·1	-68	S	6	rr	43	92	6	6	2	-	7-8	10	450
	Point of Ayre ...	995·7	-72	SW	6	r_0r_0	49	92	7	6	2	-	7-8	10	1500
13A	Tiree	989·7	-56	WSW	4	c/r	44	97	7	8	-	-	7-8	7-8	1500
13B	Stornoway ...	988·4	-34	SSW	5	RR	44	92	6	5	2	-	9	10	1500
15	Dalwhinnie ...	992·8	-64	S	5	ir	41	85	7	5	6	-	7-8	9+	2500
	Aberdeen ...	996·0	-44	SSW	3	c	45	85	6	5	-	-	9+	9+	2500
	Wick	992·6	-44	SSE	6	c	45	85	8	5	4	8	2-3	9+	2500
16	Lerwick... ...	994·5	-32	SSW	5	c	46	85	8	8	7	-	4-6	7-8	1500
17	Blacksod Point..	996·1	-10	WNW	5	cq	41	85	7	8	-	-	10	10	220
18	Malin Head ...	991·4	-28	WSW	4	c/pr	44	85	8	8	-	-	9	9	4000
	Aldergrove ...	993·9	-56	SW	4	r_0r_0	42	92	6	6	2	-	10	10	1500
19	Birr Castle ...	999·8	-12	SW	2	phr	42	92	7	6	2	-	7-8	10	800
20	Valentia Obsy. †	1003·6	+2	WNW	6	bc	45	65	8	3	-	-	2-3	2-3	2500
	Roches Point ...	1001·5	-24	W'N	5	pr	47	85	8	3	-	3	4-6	7-8	800

OBSERVATIONS at 18h. G.M.T. 3rd December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1000·6	-70	SSW	4	o/pr	47	85	6	5	-	-	10	10	1500	1	*
Croydon	1002·1	-70	S'W	5	pr	46	92	6	9	-	-	9	9	1500	1	*
S. Farnborough	1001·1	-64	S'E	4	ir	48	85	6	5	-	-	10	10	2500	1	*
Boscombe Down	1000·4	-58	SW'W	3	ir_0	41	97	6	9	-	-	10	10	1500	1	*
Calshot (Soton.)	1001·8	-42	SW'S	7	PHR	47	85	6	9	-	-	10	10	800	1	4
Lympne	1006·4	-50	SSW	6	c/pr	47	75	7	8	-	-	9+	9+	2500	1	§ 5
Manston	1005·0	-38	SW	6	ir_0	47	75	6	5	-	-	4-6	4-6	1500	1	*
Shoeburyness	1004·4	-42	SSW	5	bc	48	85	8	-	7	-	0	4-6	-	1	*
Felixstowe	1003·8	-54	S'W	6	c	47	85	8	9	-	-	9	9	1500	1	4
Gorleston	1003·4	-44	S	6	bc	45	75	7	5	-	-	4-6	4-6	2500	0	3
Mildenhall	1000·3	-56	S'E	5	z_0	46	85	6	5	1	-	7-8	9+	4000	1	*
Cranwell	996·8	-68	S'W	6	r_0r_0	44	92	6	5	2	-	9	10	2500	1	*
Birmingham	996·8	-56	W'S	4	RR	43	92	5	6	-	-	10	10	220	1	*
Upper Heyford	998·6	-70	S'W	4	iR	45	92	6	6	2	-	7-8	10	800	1	*
Ross-on-Wye	998·3	-40	W'S	3	c/r	41	92	8	6	-	-	9+	9+	1500	1	*
Hartland Point	1001·3	+8	NW	6	c	46	65	8	8	-	-	7-8	7-8	2500	1	5
Bristol	1000·5	-36	WSW	5	r_0r_0	42	85	7	6	7	-	2-3	9+	1500	2	*
Portland Bill	1000·2	-30	WSW	6	PR	50	92	7	6	-		10	10	1500	1	6
Plymouth	1004·3	-2	W	4	bc/pr	44	85	6	3	-	-	2-3	2-3	1500	1	4
The Lizard	1005·4	+8	W	8	c	49	65	8	8	-	-	7-8	7-8	1500	1	4
Scilly (St. Mary's)	1005·4	+6	W'N	7	c	47	65	7	8	6	-	4-6	7-8	1500	1	4
Guernsey	1005·8	-44	SW	2	RR	48	97	5	5	-	-	10	10	800	2	4
Pembroke	1000·1	+4	NW	7	cq	45	85	7	8	-	-	7-8	7-8	1500	1	4
Holyhead	994·9	0	W'S	6	c	45	75	7	2	-	-	7-8	7-8	2500	1	4
Chester (Sealand)	995·3	+18	-	0	c/r	42	85	6	8	2	-	7-8	10	1500	1	*
Manchester	995·0	-10	SSW	3	c/r	39	92	6	8	-	-	7-3	7-8	2500	1	*
Spurn Head	995·2	-48	S'E	6	cq	45	85	7	5	-	-	7-8	7-8	2500	0	4
Catterick	993·7	-20	SSW	4	r_0r_0	41	85	6	6	-	-	10	10	1500	1	
Tynemouth	991·9	-48	SSE	5	ir_0	44	85	6	-	2	-	10	10	1500	1	2
St. Abbs Head	988·6	-40	SW	6	ir	42	97	7	8	2	-	9	10	1500	1	3
Leuchars	988·1	-34	SW	4	pr	40	85	7	9	-	-	10	10	1500	1	*
Renfrew (Abbots I.)	990·2	-6	SW'S	2	c/r	39	92	6	5	7	-	7-8	9+	2500	1	*
Eskdalemuir	990·7	-6	W'S	3	rr	37	85	6	-	2	-	10	10	800	2	*
Point of Ayre	992·5	0	WNW	6	bc	44	75	8	8	-	-	4-6	4-6	2500	1	4
Tiree	986·9	-6	W'N	4	pr	42	85	7	8	-	-	7-8	7-8	1500	1	4
Stornoway	984·9	-4	SSW	4	c	44	75	7	8	2	-	7-8	10	2500	1	2
Dalwhinnie	*	-10	S	1	rr	34	97	6	6	-	-	10	10	1500	1	*
Aberdeen	987·9	-44	S'E	6	r_0r_0	46	85	6	6	-	-	10	10	800	1	3
Wick	986·3	-32	SSE	7	r_0r_0	46	92	7	5	2	-	7-8	10	1500	1	3
Lerwick	989·1	-16	S'E	6	c	46	85	8	8	7	-	7-8	9	1500	1	*
Blacksod Point	995·2	-6	W	6	cq	42	65	8	9	-	-	9+	9+	800	1	4
Malin Head	989·8	-10	W	4	c/pr	41	85	6	9	-	-	7-8	7-8	1500	1	4
Aldergrove	992·5	0	SW'W	4	pr	38	92	7	6	-	-	9+	9+	1500	1	*
Birr Castle	998·9	+6	WSW	2	c/pr	37	85	8	8	-	-	7-8	7-8	1500	1	*
Valentia Obsy. †	1002·6	0	W	5	bc/phr	44	65	8	3	-	-	4-6	4-6	2500	1	5
Roches Point	1002·5	+8	W'N	4	bc	40	85	8	3	-	3	2-3	4-6	1500	1	4

PAST 24 HOURS.

Stations	Weather 7h.—13h. 3rd (37)	Weather 13h.—18h. 3rd (38)	Weather 18h. 3rd to 1h. 4th (39)	Weather 1h.—7h. 4th (40)
London (Kew)	bcxbcz	bcpr_0cm_0	cRrm_0b	b
Croydon	bcm_0cm_0	bcpr_0cpr	PRpr_0b	bc$m_0$cm
S. Farnborough	bccbcc	c$pr_0m_0r_0$	cRrbm_0	b,cr_0b
Boscombe Down	bcc	cpr_0cRR	bcm_0pr_0	ciRbcbm
Calshot (Soton.)	cwbccpr_0	cprhqm_0	prlbqw	pr bpr_0
Lympne	bcc	cpr_0pr	cRRcbcb	cbccbc
Manston	bxbf	ccir_0	crrbm_0	b$m_0$cbc
Shoeburyness	bc	bc	Rqprq,b	bcb
Felixstowe	cm_0	cm_0c	coRRb	b$m_0$bcm_0
Gorleston	bwbcc	cbcq	bcorrbql	bqbc
Mildenhall	bccbc	bccm_0	bc	
Cranwell	bcc	c$r_0r_0m_0$	Rqpr_0q,b	b
Birmingham	c	cpr_0or	R$r_0$ob	b
Upper Heyford	bcc	cpr_0cR	cRr_0b	bx
Ross-on-Wye	ceq	cqrqh	cbb	bbc
Hartland Point	rrcp	cRR	Pqrl	pbccq
Bristol	cbccbc	cRRq	$r_0$bcqpbcp	cPRhbcql
Portland Bill	bcc	cPR	c	c
Plymouth	bcc	cqprthpr	b,cpr_0b	b,cpr_0bc
The Lizard	cqprc	crrcq	bcprq	bcprq
Scilly (St. Mary's)	cir_0	rr$r_0$qc	cpq bc	bcpql
Guernsey	prcbc	prrR	RPR	bccpr
Pembroke	irq cq	irqc	cbcq	
Holyhead	c$r_0r_0m_0$c	Rr$m_0$bc	bcc	bq
Chester (Sealand)	cwbcc	cr_0r_0c$m_0$rr	cpr_0, bz_0	bcz_0
Manchester	cm_0c	c$r_0$rrm_0	PHRPRq	PHqphpr
Spurn Head	c	cq	$r_0$rcq	cbcq
Catterick	bccm_0	c$m_0r_0r_0m_0$	$r_0r_0pr_0$	pr_0bcx
Tynemouth	bccm_0	c$m_0$coir_0	orrobc	cbc
St. Abbs Head	c	cirq	bcc	cprbc
Leuchars	bccpr_0c	cir_0cpr_0	cpr_0cbc	bcbwx
Renfrew (Abbots I.)	cpr_0i$r_0$rr	cRRrr	ciri$r_0$rr	
Eskdalemuir	$r_0$rrcr	rRR	b,cr_0r_0	r,bcps_0b
Point of Ayre	crr	c	cbcbc	bcPH
Tiree	oRrc	cpr	cirbc	bcpr_0
Stornoway	cRR	cRR	bcpr=	cbcc
Dalwhinnie	cir	crr	*	cis
Aberdeen	cbccz_0	cor_0	cr_0cz_0	c$z_0$xc
Wick	cbcc	cr_0r_0	Rrd_0	c ⊕
Lerwick	cprbcc	c	cpr	cpr_0
Blacksod Point	PHRq	prcq	PHRq	
Malin Head	crrcir_0c	cphrc	cprc	c
Aldergrove	cc$r_0r_0m_0$	cprPRr_0r_0	prrspr_0c	co
Birr Castle	cphr	cpr	c	cpr
Valentia Obsy. †	iRirphrbc	bcphrcbc	phrcbphr_0	pr_0phrpr_0c
Roches Point	RRirpr	bc	prbc	prbc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_0, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_0/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_0, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
⊕ Solar halo. ⦶ lunar halo. Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.

An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.

"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.

"9+" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

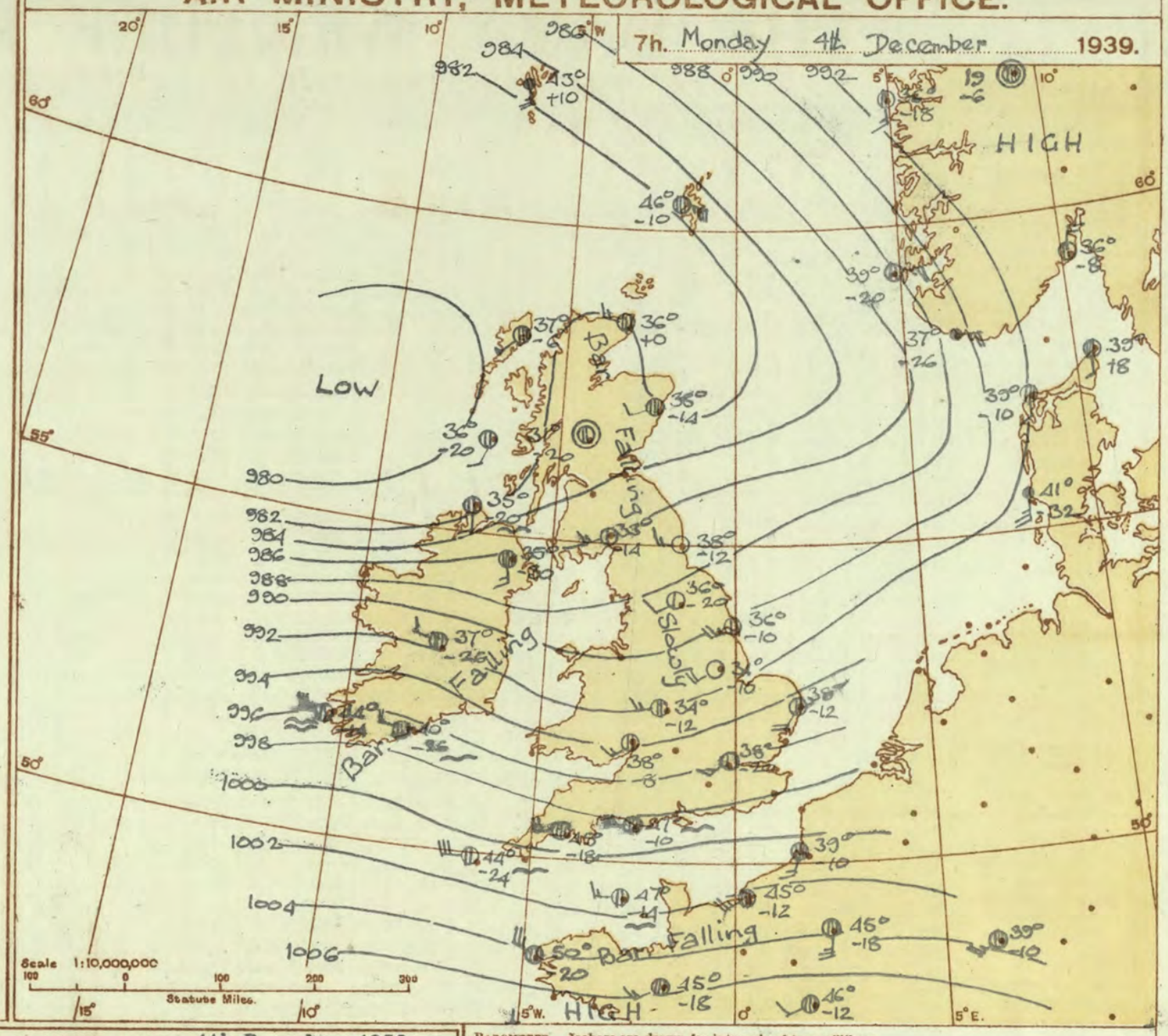
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Monday 4th. December 1939.



Districts.	Forecasts for the 24 hours commencing 12 noon, G.M.T. 4th December, 1939
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Moderate or fresh southwest to west wind, strong and squally at times; showers with local hail, but bright intervals; rather cold, ground frost at night.
5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England	Fresh or strong squally west to northwest wind; heavy showers with local hail and thunder; brighter intervals; rather cold.
9 N. Midlands ... 10 N.E. England	As 1 - 4
11 S.E. Scotland 12 S.W. Scotland & Isle of Man. 13 A. W. Scotld. / B.N.W.Scotland. 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Light or moderate variable wind; occasional local rain with snow on hills, but bright intervals locally; local fog night and morning; rather cold, night frost locally.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	As 5 - 8.

Barometer. Isobars are drawn for intervals of two millibars.
Wind, Weather Symbols. For explanation see opposite page.
Sea Disturbance. ~~ Rough. ≈≈ High.
Barometric Change from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

A depression off the Hebrides is moving eastsoutheast and norther centre over the northern North Sea is moving northeast.

Weather will be of a showery type with bright intervals especially in eastern districts.

FURTHER OUTLOOK.

Unsettled.

GALE WARNINGS.

South Cone hoisted at 0500 hours on 3rd in districts 17 & 20.

South Cone hoisted at 0730 hours on 3rd in districts 5,6,7,8 & 12.

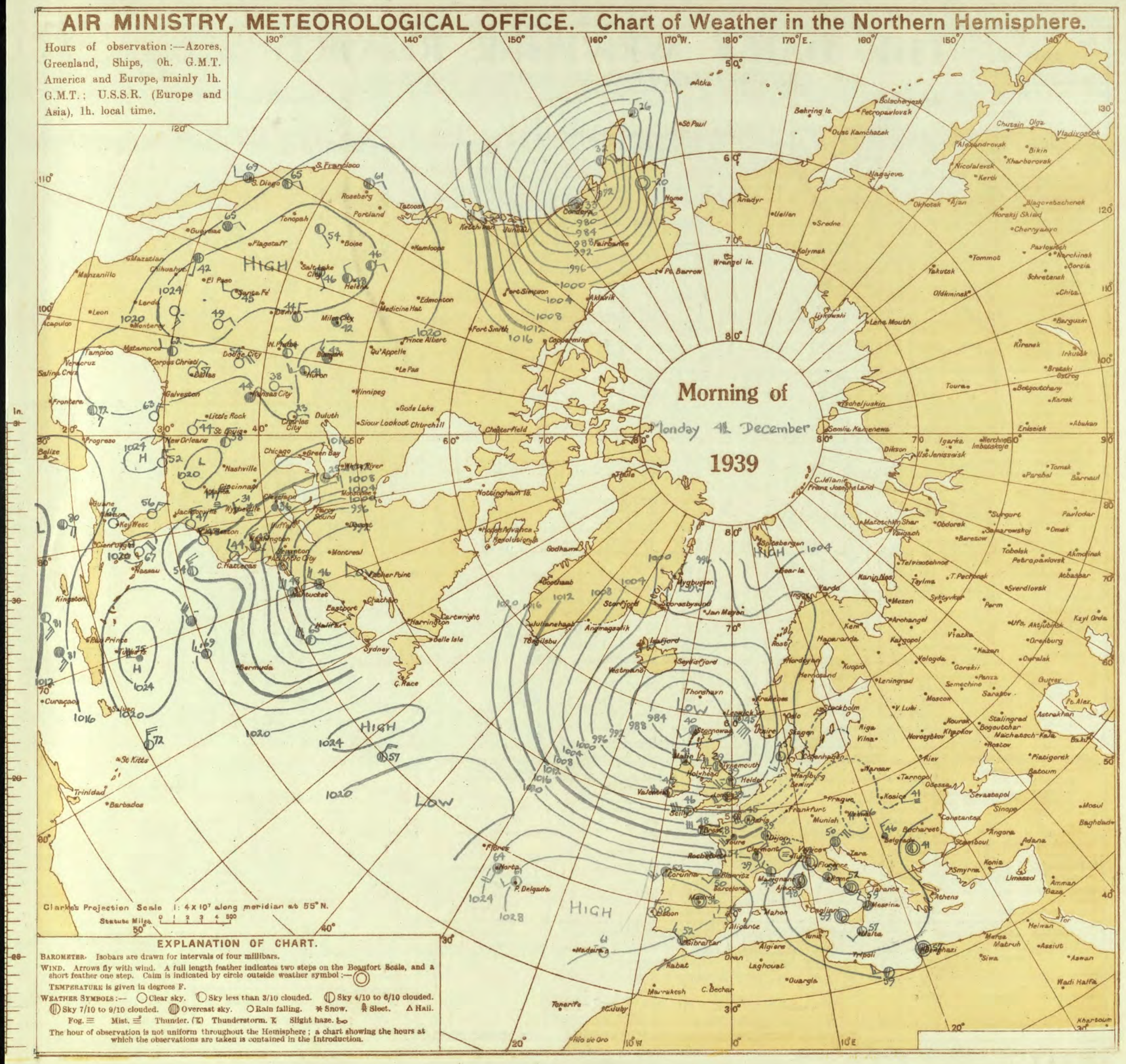
South Cone hoisted at 1100 hours on 3rd in districts 1 & 2.

Forecasts issued at 1100 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Monday, 4th December, 1939.

No. 28501

OBSERVATIONS at 1 hr. G.M.T. 4th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon	217	999.9	-2	WSW	4	bc	39	85	7	5	4	2	Tr	4-6	4000
	S. Farnborough	226	999.7	-2	SW'S	4	z	38	85	6	5	7	-	1	2-3	2500
	Boscombe Down	417	999.8	-10	WSW	4	pr	38	92	6	8	-	-	4-6	4-6	1500
	Calshot (Sthmtn.)	8	1000.9	-2	W'N	3	z	42	75	6	5	-	-	7-8	7-8	4000
	Lympne	346	1000.9	-2	WSW	4	bc	38	85	8	-	4	6	0	4-6	-
	Manston	154	999.1	+10	W'S	4	z	39	85	6	5	-	-	1	1	2500
2	Shoeburyness	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe	15	996.8	+6	W'S	4	z	41	85	6	-	-	-	0	0	-
	Gorleston	5	994.8	+2	SW	4	b	49	85	8	-	-	-	0	0	-
	Mildenhall	19	995.7	+4	SW	4	b	37	85	7	-	3	-	0	1	-
	Cranwell	240	993.8	-2	W'S	3	b	36	92	7	-	4	-	0	1	-
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	997.7	-6	SW'W	4	bc	35	85	7	-	3	1	0	4-6	-
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	998.8	-12	NW	6	c/pr	46	65	8	9	-	-	9	9	1500
	Bristol	209	998.9	-18	W	2	PHR	38	92	6	8	-	-	9	9	800
	Portland Bill	32	1000.1	-20	WNW	7	c	47	92	8	5	-	-	7-8	7-8	4000
	Plymouth	82	1001.9	-16	W'S	4	bc/pr	44	75	7	5	-	-	2-3	2-3	1500
	The Lizard	240	1003.4	-4	W	7	bc	45	85	8	8	-	-	4-6	4-6	1500
	Scilly (St. Mary's)	163	1003.2	-16	W'N	7	bc	46	75	8	2	-	-	2-3	2-3	2500
	Guernsey	175	1004.1	-10	W'S	4	bc	46	85	6	2	-	-	4-6	4-6	1500
6	Pembroke	142	998.0	-6	WNW	7	beq	45	85	8	8	-	-	4-6	4-6	1500
7	Holyhead	26	992.9	-14	WSW	6	c	43	65	8	2	-	-	7-8	7-8	2500
	Chester (Sealand)	16	999.8	-10	W'S	2	z	39	75	5	8	-	-	2-3	2-3	2500
8	Manchester	70	992.9	-10	SW'S	4	PHR	38	85	5	8	-	-	9+	9+	1500
10	Spurn Head	29	991.0	-6	W'S	5	eq	39	85	7	5	9	-	4-6	7-8	2500
	Catterick	175	990.1	-10	SW	1	c/pr	38	85	8	5	—	—	7-8	7-8	4000
	Tynemouth	108	989.1	-16	W	4	bc	39	85	7	8	-	-	4-6	4-6	1500
11	St. Abbs Head	280	985.7	-14	W	3	c	37	92	8	8	6	-	4-6	7-8	2500
	Leuchars	36	984.7	-18	WSW	2	bc	38	92	8	5	-	-	4-6	4-6	2500
12	Renfrew (Abbots I.)	19	988.0	-2	W'S	2	rr	36	97	5	5	-	-	10	10	1500
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	990.3	-6	WNW	6	bc	40	85	8	8	-	-	2-3	2-3	2500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway	80	983.4	-6	SW	2	c	40	85	7	5	1	-	4-6	10	2500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick	81	982.8	-10	SE	2	c	41	85	7	5	7	-	7-8	9+	1500
16	Lerwick	156	985.5	-22	SE	8	c/pr	45	85	7	8	7	-	7-8	9+	800
17	Blacksod Point	18	992.8	-16	W	6	beq	39	75	8	4	-	-	2-3	2-3	1500
18	Malin Head	84	987.0	-24	W	4	c	41	75	6	8	-	-	7-8	7-8	1500
	Aldergrove	268	990.4	-8	SW'S	4	c	39	92	7	8	-	-	7-8	7-8	800
19	Birr Castle	173	996.0	-14	WNW	1	c	34	97	8	5	-	-	7-8	7-8	1500
20	Valentia Obsy.	30	1000.1	-14	W'S	5	bc/ph	45	75	8	3	-	-	4-6	4-6	2500
	Roches Point	22	999.5	-10	W'N	4	bc	41	85	8	3	-	-	2-3	2-3	1500

OBSERVATIONS at 7 hr. G.M.T. 4th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	996.0	-14	SW	3	b	39	85	8	5	-	-	Tr	Tr	2500	1	*
Croydon	996.9	-20	SW'W	3	b	38	85	8	-	4	-	0	Tr	-	1	*
S. Farnborough	996.4	-14	SW'S	3	b	37	85	8	-	4	-	0	Tr	-	1	*
Boscombe Down	996.8	-14	SW	2	b	36	97	6	5	-	-	Tr	Tr	2500	1	*
Calshot (Sthmtn.)	1007.3	-14	W'S	3	b	37	97	7	8	-	-	1	1	800	1	2
Lympne	998.0	-10	W	3	bc	37	85	8	8	4	-	2-3	2-3	4000	1	§
Manston	996.4	-8	W'S	4	bc	37	85	7	5	-	-	2-3	2-3	4000	1	*
Shoeburyness	996.8	-10	WSW	4	b	40	85	7	4	4	-	Tr	1	2500	1	*
Felixstowe	995.2	-8	W'S	4	z	38	85	6	8	-	-	Tr	Tr	4000	1	2
Gorleston	993.5	-12	SW'S	4	bc	38	85	7	5	-	-	2-3	2-3	2500	1	3
Mildenhall																*
Cranwell	991.7	-10	SW	4	b	34	92	8	5	3	-	Tr	1	5700	1	*
Birmingham	993.2	-12	WSW	3	bc	34	92	6	5	-	6	Tr	4-6	2500	1	*
Upper Heyford	995.1	-14	SSW	2	b	33	97	7	-	-	-	0	0	-	1	*
Ross-on-Wye	993.8	-8	SW	3	bc	38	75	7	-	1	2	0	2-3	-	1	*
Hartland Point	994.7	-30	W	6	cjp	45	75	8	9	-	-	7-8	9	1500	1	4
Bristol	999.5	-18	WSW	3	pr	38	85	8	8	4	-	4-6	4-6	1500	2	*
Portland Bill	997.6	-10	W	6	c	47	92	8	5	7	-	4-6	9	4000	1	5
Plymouth	998.6	-18	W	4	c	45	65	7	8	3	-	4-6	7-8	2500	1	3
The Lizard	999.3	-16	W'S	6	c	46	85	8	8	-	-	7-8	7-8	1500	1	4
Scilly (St. Mary's)	999.5	-24	W	6	bc/pr	44	85	8	8	-	-	2-3	2-3	1500	1	4
Guernsey	1000.7	-14	W	3	bc	47	65	8	2	-	-	2-3	2-3	2500	1	4
Pembroke																
Holyhead	987.9	-34	WSW	5	bc	42	75	8	2	-	-	4-6	4-6	2500	1	3
Chester (Sealand)	989.6	-30	SW	2	z	39	75	6	5	7	-	4-6	4-6	2500	1	*
Manchester	989.8	-22	S	3	c/pr	36	92	6	8	3	-	4-6	9	2500	2	
Spurn Head	989.4	-10	SW'W	5	beq	36	92	7	-	4	-	0	4-6	-	1	3
Catterick	987.2	-20	SW'W	2	b	36	85	8	5	-	-	1	1	4000	1	*
Tynemouth	986.1	-12	W	3	bc	38	75	7	2	3	-	2-3	4-6	2500	1	2
St. Abbs Head	988.4	-4	WNW	3	bc	37	85	8	4	6	1	2-3	4-6	2500	0	2
Leuchars	987.9	-6	SW	3	bc	35	92	8	5	7	-	2-3	2-3	4000	1	*
Renfrew (Abbots I.)																*
Eskdalemuir	985.1	-14	WSW	3	b	33	85	8	5	-	-	1	1	1500	4	*
Point of Ayre	986.1	-24	W	3	c	40	85	8	9	6	-	7-8	7-8	2500	1	3
Tiree	980.5	-20	S'W	2	bc	36	85	8	8	-	-	4-6	4-6	1500	1	2
Stornoway	981.7	-6	SW	1	c	37	75	8	5	7	-	7-8	7-8	2500	1	0
Dalwhinnie	*	-20	-	0	bc	31	85	7	4	-	-	2-3	2-3	2500	4	*
Aberdeen	981.5	-14	WNW	2	c	38	85	7	5	-	&	Tr	9+	4000	1	1
Wick	982.0	0	WNW	3	c	36	92	7	5	1	-	4-6	7-8	1500	1	1
Lerwick	982.6	-10	ESE	7	c/pr	46	85	7	8	7	-	4-6	10	800	1	*
Blacksod Point																
Malin Head	982.1	-40	S	4	bc	35	92	7	8	-	-	4-6	4-6	4000	0	4
Aldergrove	985.1	-30	S	3	o	35	92	7	5	-	-	10	10	800	1	*
Birr Castle	989.4	-26	WNW	2	c/pr	37	85	8	8	-	-	7-8	7-8	1500	1	*
Valentia Obsy.	995.0	-14	W'N	7	bc	44	65	8	3	-	-	2-3	2-3	2500	1	6
Roches Point	994.1	-26	W'N	4	bc/pr	40	92	8	3	-	3	4-6	4-6	1500	1	4

PAST 24 HOURS.

Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 3rd Hrs. (36)
London (Kew)	48	39	33	Tr	3	4.1
Croydon	50	36	33	Tr	12	4.1
S. Farnborough	49	37	33	0.1	4	4.1
Boscombe Down	48	35	30	5	3	3.1
Calshot (Sthmtn.)	50	37	34	7	4	1.9
Lympne	48	36	31	0.4	8	4.9
Manston	49	37	33	0.2	5	5.2
Shoeburyness	49	40	39	Tr	7	3.6
Felixstowe	48	38	33	-	5	4.1
Gorleston	46	37	35	-	5	*
Mildenhall	47			-		
Cranwell	46	34	31	0.1	5	2.6
Birmingham	46	34	26	6	3	0.7
Upper Heyford	47	32	23	0.2	2	*
Ross-on-Wye	48	36	30	7	-	0.4
Hartland Point	50	42	38	6	1	0.1
Bristol	49	38	31	8	3	1.9
Portland Bill	54	46	*	1	1	*
Plymouth	52	44	40	9	0.2	0.8
The Lizard	52	42	*	7	0.6	0.9
Scilly (St. Mary's)	52	43	*	3	3	0.4
Guernsey	51	43	39	9	3	1.5
Pembroke			*	6		
Holyhead	50	41	39	5	-	0.0
Chester (Sealand)	50	38	31	10	0.2	0.3
Manchester	46	35	32	5	9	1.2
Spurn Head	46	36	*	-	4	1.7
Catterick	45	35	31	2	0.2	0.0
Tynemouth	46	38	33	0.1	2	*
St. Abbs Head	45	36	*	Tr	0.2	*
Leuchars	48	34	31	0.4	0.1	0.5
Renfrew (Abbots I.)	47			16		
Eskdalemuir	45	32	29	16	5	0.0
Point of Ayre	49	38	*	6	1	0.0
Tiree	47	34	30	3	3	0.0
Stornoway	*	*	*	3	0.1	0.0
Dalwhinnie	42	30	25	7	0.3	0.0
Aberdeen	46	36	29	0.3	0.3	0.0
Wick	47	35	*	0.2	5	*
Lerwick	47	45	*	Tr	Tr	2.6
Blacksod Point			*	8		*
Malin Head	46	34	*	7	3	0.0
Aldergrove	45	34	32	8	2	0.0
Birr Castle	48	32	31	6	7	0.0
Valentia Obsy.	51	40	37	9	3	2.2
Roches Point	51	38	*	7	2	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning	Weather Afternoon	Weather Night	Temp. Day Max. °F.	Temp. Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. Yesterday	Humidity 15h. G.M.T. % Yesterday	Humidity 9h. G.M.T. % To-day	Visibility 9h.
Kew	18	bcvbez	bcprcm	cRrmb	48	39	33	Tr	3	4.1	*	*	6
Croydon	217	bcmcm	bcpr cpr	PRpgm	50	36	33	Tr	12	4.1	*	*	
Greenwich (Royal Observatory)	149	*	*	*	*	*	*	*	*		*	*	*
City (Bunhill Row)	—	*	*	*									*
Westminster (St. James' Park)	27	*	*	*									*
Regents Pk. (Botanic Gardens)‡	168	*	*	*									*
Camden Square	110			*						*	*		*
Kensington	80			*									*
Hampstead Observatory	450										*		*

(Weather: 24 hrs. ended 9h.)

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 4th

South Kensington Max.	Time.	Min.	Time.

Kew Observatory Max.	Time.	Min.	Time.
0.1	14h. 3rd	<0.1	18-24h 3rd

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 3rd December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	7h. G.M.T. 4th December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1015.3	S	5	c	43	1003.3	S	5	c	45	48	41	-	6
Brussels														
Berlin														
Zürich														
Rome	1013.2	-	0	o	57	1012.1	-	0	bc	58	*	*	-	2

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22.—Code for surface visibility.

Objects not visible at
0 Dense fog 55 yards.
1 Thick fog 220 ,,
2 Fog 550 ,,
3 Moderate fog 1,100 ,,
4 Mist or haze 1½ miles.
5 Poor visibility 2½ ,,
6 Moderate ,, 6¼ ,,
7 Good ,, 12½ ,,
8 Very good ,, 31 ,,
9 Excellent ,, beyond 31m.

COLUMN 30.—Code for State of Sea.
0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Tuesday 5th December 1939.

No. 28502

OBSERVATIONS at 13h. G.M.T. 4th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	990·6	-34	SW'W	4	zo	43	75	6	5	3	2	4-6	7-8	2500
	Croydon ...	991·9	-36	WSW	3	c/pr	43	75	7	4	6	3	4-6	7-8	1500
	S. Farnborough	991·3	-34	SW'W	4	bc	43	75	8	8	7	1	2-3	4-6	2500
	Boscombe Down	991·2	-30	WSW	5	c/pr	42	85	8	8	4	-	7-8	7-8	1500
	Calshot (Soton.)	992·4	-28	W'S	4	bc	44	75	8	8	6	-	1	2-3	1500
	Lympne ...	993·4	-40	SW'W	5	roro	41	85	7	6	2	-	4-6	10	1500
	Manston ...	991·6	-38	SW'S	3	zo	43	75	6	5	7	-	7-8	9+	1500
2	Shoeburyness ...	991·7	-34	SW	3	pr	45	65	8	9	2	-	7-8	10	1500
	Felixstowe ...	990·9	-32	SW'S	4	c	43	75	7	-	2	-	0	10	-
	Gorleston ...	990·2	-24	S	4	c	41	75	6	5	-	-	10	10	2500
	Mildenhall ...	988·6	-30	SW	5	c	41	85	7	5	1	8	Tr	9+	4000
	Cranwell ...	986·5	-26	SW'S	4	pr	40	85	6	8	7	-	7-8	9+	2500
3	Birmingham	988·4	-24	SW	2	c/rs	38	85	6	9	7	-	4-6	7-8	800
	Upper Heyford	989·9	-34	WSW	4	bc/r	40	92	8	1	3	-	2-3	4-6	1500
4	Ross-on-Wye ...	988·6	-30	SW'W	3	bc	44	65	8	8	-	1	4-6	4-6	2500
5	Hartland Point	990·7	-20	WNW	6	c/phr	45	85	8	9	6	-	7-8	7-8	1500
	Bristol ...	990·3	-30	WSW	5	pr	42	85	8	8	6	-	4-6	7-8	1500
	Portland Bill ...	992·5	-32	W	7	c	47	92	8	5	7	-	4-6	9	4000
	Plymouth ...	994·5	-18	W	6	bc	48	65	8	2	-	-	4-6	4-6	2500
	The Lizard ...	995·6	-20	W	8	bc	48	75	8	8	6	-	4-6	4-6	2500
	Scilly (St. Mary's)	995·1	-32	WNW	8	bcq	48	75	8	8	6	-	2-3	4-6	1500
	Guernsey ...	996·7	-18	W	4	bc/pr	47	75	8	2	7	8	2-3	4-6	2500
6	Pembroke ...	988·2	-20	W'N	8	pr	47	65	6	5	-	-	9+	9+	1500
7	Holyhead ...	981·4	-46	SW	6	rr	41	92	6	6	2	-	7-8	10	800
	Chester (Sealand)	984·5	-30	SW	3	c	43	65	7	8	7	-	7-8	9	2500
8	Manchester ...	984·7	-30	SSW	3	pr	42	75	6	8	-	-	9+	9+	1500
10	Spurn Head ...	985·4	-28	SW'S	4	c	40	85	6	-	9	6	0	7-8	-
	Catterick ...	983·7	-26	S'E	2	f+	34	97	3	-	-	-	10	10	<150
	Tynemouth ...	983·3	-20	SW	2	bc/f	39	75	5	5	3	1	4-6	4-6	1500
11	St. Abbs Head	982·0	-8	SW	3	bc	39	85	8	7	4	-	2-3	2-3	2500
	Leuchars ...	981·2	-16	WSW	2	zo	40	75	6	4	-	-	Tr	Tr	4000
12	Renfrew (Abbots I.)	982·0	-22	-	0	m/pr	37	92	4	8	-	-	9+	9+	2500
	Eskdalemuir ...	981·9	-16	S'E	2	c	35	85	7	5	-	-	9	9	1500
	Point of Ayre ...	980·3	-32	S'W	2	c	42	85	8	8	7	9	2-3	9+	2500
13A	Tiree ...	979·3	0	SSE	3	c	41	75	8	8	-	-	7-8	7-8	1500
13B	Stornoway ...	982·2	+6	-	0	c	38	85	8	5	7	4	4-6	9+	2500
15	Dalwhinnie ...	*	-10	-	0	bc	36	75	8	4	6	-	1	2-3	4000
	Aberdeen ...	980·4	-10	NW	2	c	40	75	8	5	7	-	Tr	9+	4000
	Wick ...	979·9	-6	WNW	2	rr	39	97	6	5	2	-	7-8	10	1500
16	Lerwick...	985·2	+2	ESE	8	ir	44	85	7	8	2	-	7-8	10	800
17	Blacksod Point..	983·3	+6	WNW	8	cq	44	92	7	9	-	-	9	9	<150
18	Malin Head ...	976·1	-18	S	4	c/rs	35	92	7	8	-	-	9	9	2500
	Aldergrove ...	978·3	-38	SSE	3	ss	34	92	5	-	2	-	10	10	450
19	Birr Castle ...	984·6	-14	WNW	2	pr	45	85	7	9	2	-	7-8	9	1500
20	Valentia Obsy. †	993·4	-2	WNW	6	pr	47	75	7	9	-	-	9+	9+	1500
	Roches Point ...	989·6	-26	WNW	4	bc/pr	47	85	8	3	-	5	4-6	4-6	1500

OBSERVATIONS at 18h. G.M.T. 4th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
1	London (Kew)...																*
	Croydon ...	987·9	-26	SW'S	4	zo	42	75	6	5	-	-	4-6	4-6	4000	1	*
	S. Farnborough	987·0	-20	SSW	5	bc	42	75	7	5	7	-	4-6	4-6	4000	1	*
	Boscombe Down	987·3	-26	SW'W	6	ir	42	85	5	6	2	-	10	10	800	1	*
	Calshot (Soton.)	988·4	-26	WSW	5	pr	46	75	7	8	-	-	4-6	4-6	1500	1	3
	Lympne ...	989·8	-20	SW'W	3	b	37	85	7	-	-	-	0	0	-	1	§4
	Manston ...	988·5	-14	SW	3	zo	39	75	6	5	-	-	1	1	1500	1	*
2	Shoeburyness ...																*
	Felixstowe ...	987·0	-18	SW	4	zo	42	85	6	5	-	-	9+	9+	2500	1	3
	Gorleston ...	986·4	-16	SSW	3	bc	39	85	6	5	-	-	4-6	4-6	2500	1	2
	Mildenhall ...	986·3	-12	S'W	4	c/r	41	85	5	5	-	-	9+	9+	2500	1	*
	Cranwell ...	982·1	-32	SW	3	zo	38	92	6	5	2	-	4-6	10	1500	1	*
3	Birmingham	982·6	-30	SW	3	bc	41	85	7	5	-	-	4-6	4-6	1500	1	*
	Upper Heyford	985·1	-18	SSW	4	c	40	85	7	5	7	-	7-8	9	800	1	*
4	Ross-on-Wye ...	983·9	-20	SSW	3	c	45	75	8	5	-	-	9+	9+	1500	1	*
5	Hartland Point	988·2	0	WNW	6	cjp	47	85	8	3	-	-	7-8	7-8	1500	1	4
	Bristol ...	986·2	-20	SW	5	c/pr	44	85	7	9	-	-	9	9	1500	2	*
	Portland Bill ...	988·4	-28	W	7	c	47	92	8	5	-	-	4-6	7-8	4000	1	6
	Plymouth ...	991·1	-8	W'N	5	bc	47	85	6	9	-	-	2-3	2-3	2500	1	4
	The Lizard ...	992·4	-16	W	8	c	47	75	8	8	-	-	7-8	7-8	1500	1	4
	Scilly (St. Mary's)	993·3	-2	W'N	7	c/pr	47	75	7	9	6	-	7-8	9+	1500	1	5
	Guernsey ...	993·5	-14	W	4	bc	48	75	7	2	4	-	2-3	2-3	2500	1	4
6	Pembroke ...	985·8	0	WNW	8	bcq	49	75	7	8	-	-	4-6	4-6	1500	1	4
7	Holyhead ...	978·5	-10	W'S	7	c	47	75	8	6	-	-	7-8	7-8	2500	1	4
	Chester (Sealand)	979·4	-22	W	3	roro	46	85	5	5	-	-	9+	9+	1500	1	*
8	Manchester ...	979·7	-26	N'E	2	r/tlr	36	97	6	9	2	-	9+	10	800	2	*
10	Spurn Head ...	982·2	-16	S	4	rr	38	92	6	5	-	-	10	10	1500	1	2
	Catterick ...	980·4	-18	SSE	1	iro	34	97	5	5	-	-	10	10	1500	1	*
	Tynemouth ...	981·5	-14	SW	2	bcf	33	97	3	5	-	-	4-6	4-6	1500	1	3
11	St. Abbs Head	980·4	0	SW	2	bc	34	97	7	4	-	-	2-3	2-3	2500	0	2
	Leuchars ...	980·4	0	SW	1	bc	32	92	7	5	-	-	2-3	2-3	5700	1	*
12	Renfrew (Abbots I.)	981·5	+2	-	0	bf	31	92	3	5	-	-	Tr	Tr	2500	1	*
	Eskdalemuir ...	980·3	-6	NNE	2	c	31	92	7	5	-	-	7-8	7-8	1500	4	*
	Point of Ayre ...	977·5	-4	SE'E	3	ido	41	92	7	9	2	-	4-6	10	1500	1	2
13A	Tiree ...	982·4	+20	N'E	3	bc	41	75	8	7	-	-	2-3	2-3	2500	0	3
13B	Stornoway ...	982·8	+2	NNW	3	c/pr	40	85	7	5	-	-	7-8	7-8	2500	1	2
15	Dalwhinnie ...	980·3	+2	-	0	is	26	75	7	5	-	-	10	10	2500	4	*
	Aberdeen ...	979·9	+2	W	2	roro	37	85	6	6	2	-	7-8	10	1500	1	1
	Wick ...	979·3	+4	ENE	8	c/r	46	85	7	9	7	-	7-8	10	1500	1	3
16	Lerwick...	985·5	+12	SSW	6	c/pr	43	75	7	8	7	-	7-8	9+	800	1	*
17	Blacksod Point..	985·2	+18	WNW	8	cq	45	85	7	9	-	-	9	9	1500	1	5
18	Malin Head ...	981·3	+32	NE	4	c	42	75	7	8	-	-	7-8	7-8	5700	4	5
	Aldergrove ...	979·1	+22	NW'N	2	roro	35	97	7	-	2	-	10	10	450	2	*
19	Birr Castle ...	985·2	+2	WNW	3	bc/pr	43	85	8	3	-	-	4-6	4-6	1500	1	*
20	Valentia Obsy. †	994·4	+8	NW'W	7	c/pr	46	75	7	9	-	-	9	9	1500	1	5
	Roches Point ...	989·4	+2	WNW	6	bc/pr	45	85	8	3	-	3	2-3	4-6	1500	1	3

PAST 24 HOURS. WEATHER.

District	Stations	7h.–13h. 4th (37)	13h.–18h. 4th (38)	18h. 4th to 1h. 5th (39)	1h.–7h. 5th (40)
1	London (Kew)...	bbcmo		bcmo	cbczo
	Croydon ...	bbmzqpro	bcbczo	czbcbm	bz cpro m
	S. Farnborough	bxcrobc	bcbbc	bccb,c	irocirb
	Boscombe Down	cprbc	bcprciro	bcmo cpro	bcmo bmo
	Calshot (Soton.)	b,cpro	bcpro	bbmo	bmocmobmo
	Lympne ...	bcb,cprq	cpro,b	bcdobcl	bcebc⊕
	Manston ...	b,cczo		bz bcmo	bcwcpro
2	Shoeburyness ...	bbcc		b	b,cprb
	Felixstowe ...	bmobcmo	cirocmo	cmob	bc,pro
	Gorleston ...	bcc	coirobc		bcepro
	Mildenhall ...	bcc	bcciro	cmo ro lbc	ido cmo
	Cranwell ...	cmpro	proirorocc	rocproqpro	roroddcmo
3	Birmingham	cprs	cprspr	bcepecpr	cbcc
	Upper Heyford	prorrc	cprocroc	clrcrocbcb	cprbccb
4	Ross-on-Wye ...	bccirbc	bcpoc	cbc	bcc
5	Hartland Point	cphrl	cirqp	cpq	c
	Bristol ...	cprobc	cphoRRl	cbcRqcR	bc q c
	Portland Bill ...	cpr	cpr	cpr	cbc
	Plymouth ...	cprmcbc	cbcpromo	bcmo pro	bccprbc
	The Lizard ...	cbcq [gale]	bcprc [gale]	bcprq [gale]	cprbc [gale]
	Scilly (St. Mary's)	bcpq [gale]	cphrq [gale]	cbcpq [gale]	bcpqc
	Guernsey ...	bcPR	bc	bcPR	bccpr
6	Pembroke ...	cprq [gale]	cirbcq [gale]	cbcprq	bccprq
7	Holyhead ...	cirrr	crrobc [gale]	bcebc	bceR
	Chester (Sealand)	bczoc	rrmororo	cmororolfrR	bmocmsoso
8	Manchester ...	cmproccz	crtlrR	cRRpro	cmobcmo
10	Spurn Head ...	cq	bcor	crrc	PRoc
	Catterick ...	psmof	bcmbcmo	roromomb	roromomb
	Tynemouth ...	bcffbc	bcmff	bcffbc	bcdrst[illegible]
11	St. Abbs Head	bc	bcc	bcbmo	bcs
	Leuchars ...	bxbmo	bmobcbx	bxcbcf	bf,bmxc
12	Renfrew (Abbots I.)	bcxffmopro	bcmbff	bfogof	og, fobx
	Eskdalemuir ...	bbcc	cbc	bcbx	bx
	Point of Ayre ...	c	c	b bcbc	rrcbc
13A	Tiree ...	bcc	cbc	bccrbc	bc
13B	Stornoway ...	cbcc	cpro	cpr	cbcpr
15	Dalwhinnie ...	bc	bccis	*	cls
	Aberdeen ...	czoc	ciror	rorobx	bxcpro
	Wick ...	irorr	rrcq [gale]	c prbc	cprbc
16	Lerwick...	cir [gale]	cirprq	cbc	bccbc
17	Blacksod Point..	PRcq [gale]	PRcq [gale]	bcq	bcq
18	Malin Head ...	crsc	cproc	bcc	c
	Aldergrove ...	ssfoss	ssrsroro	rorohmc	lrprhoqb
19	Birr Castle ...	cpr	cpr	cbcb	boir
20	Valentia Obsy. †	bphopr	prcproc	proqprc	prophrPR
	Roches Point ...	irobc	probc	bccpr	bc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/so, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
so/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). ⸗gale.
⊕ Solar halo. ⦶ lunar halo. ⌂Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

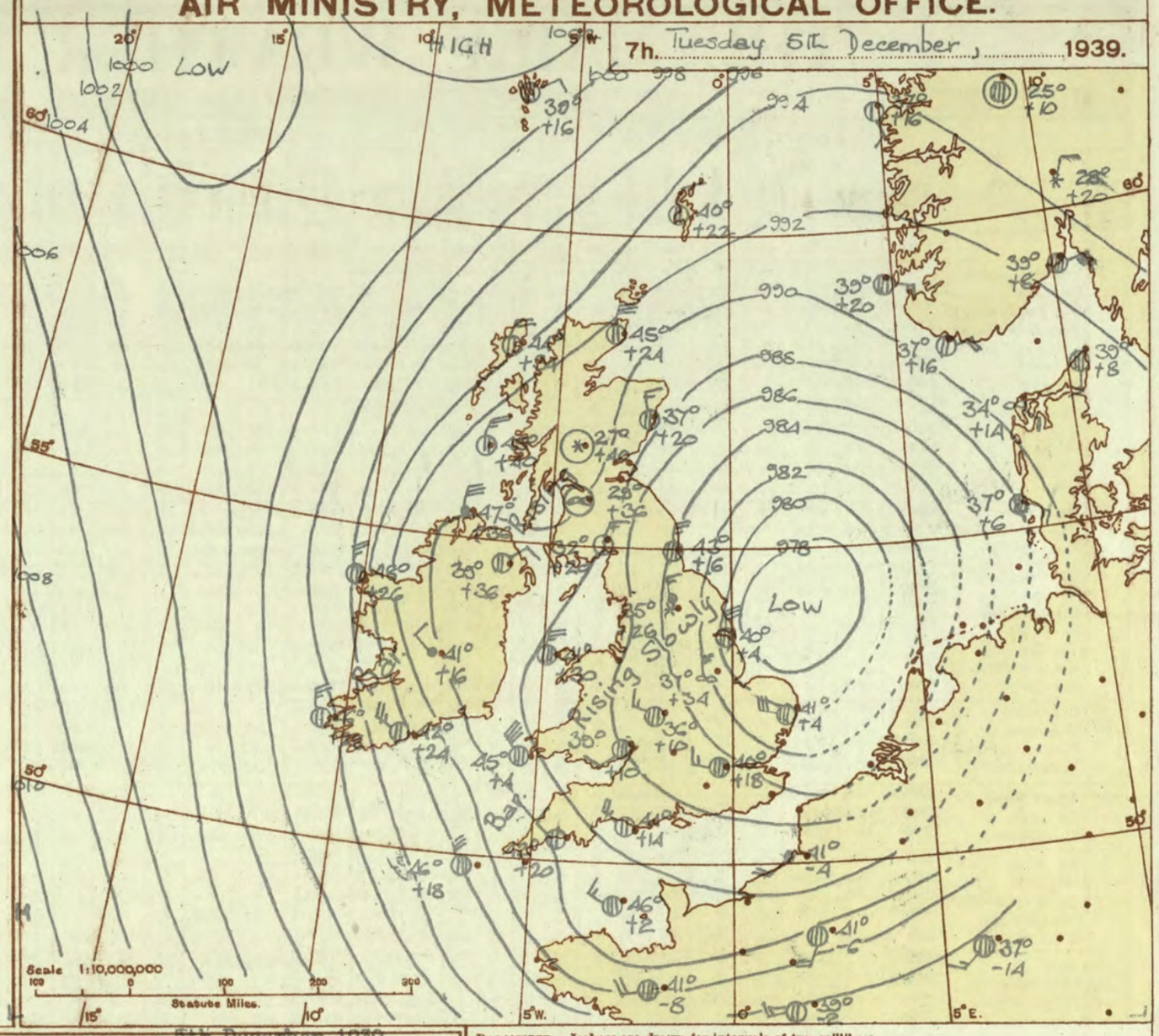
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Tuesday 5th December, 1939.



DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 5th December, 1939.
1 S.E. England	Wind north to northwest, fresh or strong at times slowly moderating; wintry showers of hail or sleet, becoming less frequent bright intervals; cold with frost at night.
2 E. England ...	
3 E. Midlands ...	
4 W. Midlands ...	
5 S.W. England	
6 South Wales ...	
7 North Wales ...	
8 N.W. England	
9 N. Midlands ...	
10 N.E. England	
11 S.E. Scotland	
12 S.W. Scotland & Isle of Man.	
13 A. W. Scotld. B.N.W.Scotland.	
14 Mid Scotland	
15 N. E. Scotland	
16 Orkneys and Shetlands	
17 N. W. Ireland	
18 N. E. Ireland	
19 S. E. Ireland	
20 S. W. Ireland	

BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

A deep depression centred over the North Sea off the Humber is moving southeastwards and filling up, whilst secondaries are crossing the British Isles from North to South.

There will be frequent wintry showers in all districts with some bright intervals.

FURTHER OUTLOOK.

Winds moderating, but remaining cold and showery.

GALE WARNING.

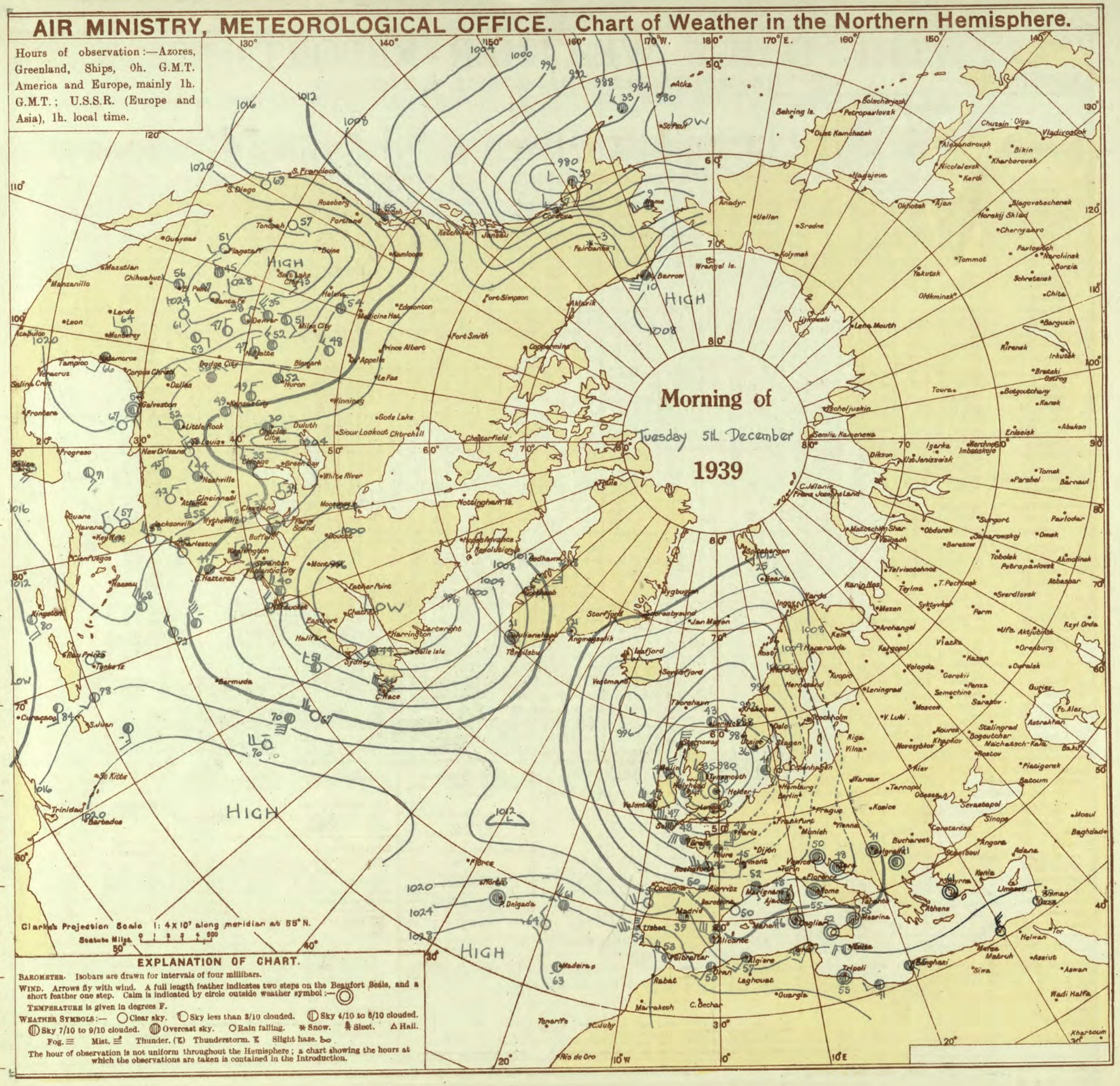
Issued at 0500 3/12/39 in district 20.
Issued at 0750 3/12/39 in districts 5,6 & 19.

Forecasts issued at 1100 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Tuesday 5th. December 1939.

No. 28502

OBSERVATIONS at 1 hr. G.M.T. 5th. December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	984.1	-16	SW'W	4	b	43	75	6	5	-	-	Tr	1	4000
	S. Farnborough	226	983.5	-16	SSW	4	z	42	85	6	5	-	-	9+	9+	2500
	Boscombe Down	417	983.9	-18	N'W	4	pr	42	85	6	5	-	-	10	10	2500
	Calshot (Sthmtn.)	8	984.6	-20	W'S	4	z	44	78	6	5	-	-	1	1	2500
	Lympne ...	346	985.5	-10	SW'W	3	bc	40	85	8	8	-	-	4-6	4-6	4000
	Manston ...	154	984.1	-6	SW'W	4	z	41	85	6	5	-	-	2-3	2-3	2500
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	982.7	-10	SW'S	5	b	45	85	7	5	-	-	1	1	4000
	Gorleston ...	5														
	Mildenhall ...	19	980.1	-12	SW'S	4	c/r	42	85	6	5	-	-	4-6	7-8	4000
	Cranwell ...	240	977.8	-18	SW	3	r	41	87	5	6	-	-	10	10	500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	980.3	-26	WSW	3	b	39	85	6	5	-	-	1	1	2500
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	985.3	-18	WNW	6	c	47	76	8	3	-	-	7-8	7-8	1500
	Bristol ...	209	983.2	-16	WSW	5	bc/pr	44	80	7	3	-	-	4-6	4-6	2500
	Portland Bill ...	32	984.8	-18	W	7	c	48	85	8	5	-	-	7-8	10	2500
	Plymouth ...	82	988.5	-16	WNW	5	bc/pr	46	85	7	5	-	-	2-3	2-3	2500
	The Lizard ...	240	980.3	-12	W	8	bcq	47	76	8	8	-	-	4-6	4-6	1500
	Scilly (St. Mary's)	163	981.4	-10	NNW	7	bc/pr	47	75	7	5	6	-	4-6	4-6	1500
	Guernsey ...	175	983.7	-16	WNW	4	bc	48	82	6	2	2	-	4-6	4-6	1500
6	Pembroke ...	142	986.1	+4	NW'N	7	bc/pr	45	78	7	8	-	-	4-6	4-6	1500
7	Holyhead ...	26	1003.4	+46	NW'N	6	bc	44	65	8	8	-	-	4-6	4-6	2500
	Chester (Sealand)	16	981.8	+34	NNW	4	b	38	85	5	5	-	-	1	1	2500
8	Manchester ...	70	980.5	+22	N'W	3	z	37	92	5	8	-	-	9	9	1500
10	Spurn Head ...	29	978.3	-6	-	0	ir	38	97	6	5	-	-	10	10	2500
	Catterick ...	175	980.3	+10	NNW	3	b	35	92	7	5	-	-	1	1	2500
	Tynemouth ...	108	981.8	+4	NW	3	bc	35	92	6	2	-	-	4-6	4-6	2500
11	St. Abbs Head	280	982.6	+16	WNW	2	b	36	92	6	-	-	-	0	0	-
	Leuchars ...	36	983.3	+22	NW	1	cf+	33	97	3	5	-	-	9+	9+	4000
12	Renfrew (Abbots I.)	19	980.2	+6	-	0	SS	33	97	2	5	-	-	10	10	450
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	983.0	+22	N	4	bc	40	85	7	-	2	-	0	4-6	-
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	987.4	+24	ENE	6	pr	45	75	7	8	2	-	7-8	10	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	983.4	+52	E	4	bc	44	85	7	5	7	-	4-6	4-6	1500
16	Lerwick ...	156	983.1	+10	ENE	5	bc	43	65	8	8	-	-	4-6	4-6	1500
17	Blacksod Point	18	992.1	+34	N	5	bcq	44	85	8	8	-	-	4-6	4-6	1500
18	Malin Head ...	84	985.5	+6	N	5	c	47	75	7	3	-	-	7-8	7-8	4000
	Aldergrove ...	268	984.6	+6	W	4	z	36	92	6	5	1	-	4-6	10	2500
19	Birr Castle ...	173	989.7	+20	NW	1	b	38	92	8	-	-	-	0	0	-
20	Valentia Obsy.	30	994.3	+2	NW	6	c/pr	47	75	8	3	-	-	7-8	7-8	1500
	Roches Point	22	989.3	+2	WNW	6	pr	44	85	*	3	-	3	4-6	7-8	1500

OBSERVATIONS at 7 hr. G.M.T. 5th. December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	984.7	+28	NW	4	z	40	75	6	5	-	-	7-8	7-8	1500	1	*
Croydon ...	984.7	+18	W'N	6	c	40	85	6	5	-	-	9+	9+	1500	1	*
S. Farnborough	985.7	+30	W'N	3	z	38	78	6	5	-	1	Tr	1	2500	1	*
Boscombe Down	983.7	+30	W	2	z	34	92	6	5	-	-	1	1	4000	1	*
Calshot (Sthmtn.)	986.2	+20	NW'W	3	z	42	75	6	5	-	-	1	1	4000	1	2
Lympne ...	984.1	+4	W'N	4	pr	41	75	7	8	-	-	9	9	2500	1	§
Manston ...	982.6	+4	WNW	4	c/pr	41	85	6	8	-	-	9	9	1500	1	*
Shoeburyness ...	983.2	+6	W	4	c	41	75	7	9	-	-	9	9	1500	1	*
Felixstowe ...	981.9	+6	WNW	3	c/pr	40	85	6	8	-	-	9+	9+	1500	1	2
Gorleston ...	980.1	+4	W'S	3	c/pr	41	85	6	8	-	-	9+	9+	2500	1	3
Mildenhall ...	981.9	+26	WNW	4	z	38	85	5	5	-	-	10	10	2500	1	*
Cranwell ...	983.2	+34	N'W	5	z	37	92	5	6	3	-	4-6	4-6	1500	1	*
Birmingham ...	985.3	+10	NW	3	c	36	85	5	5	1	-	7-8	9+	2500	1	*
Upper Heyford	985.4	+26	WNW	2	c	33	92	6	-	4	6	0	7-8	-	1	*
Ross-on-Wye	986.9	+10	SW	2	c	39	85	7	5	1	-	2-3	9+	2500	1	*
Hartland Point	989.8	+28	NW	5	c	44	78	8	8	-	-	7-8	7-8	2500	1	4
Bristol ...	987.1	+18	WNW	3	c	38	78	7	5	-	-	7-8	7-8	2500	2	*
Portland Bill ...	987.8	+14	NW	5	bc	44	92	8	6	-	-	4-6	4-6	4000	1	5
Plymouth ...	990.0	+20	NW	2	bc	42	78	7	5	-	-	2-3	2-3	1500	1	3
The Lizard ...	991.1	+20	W	5	bc	45	85	8	8	-	-	2-3	2-3	2500	1	3
Scilly (St. Mary's)	992.6	+18	NNW	6	c	48	65	8	8	6	-	4-6	7-8	1500	1	*
Guernsey ...	988.5	+2	NW	3	c/pr	46	87	8	8	-	-	7-8	7-8	1500	1	4
Pembroke ...	988.9	+4	NW'N	8	c/pr	45	78	7	8	2	-	7-8	9+	1500	1	3
Holyhead ...	989.4	+30	NNE	5	c	41	85	8	8	-	-	9	9	2500	1	3
Chester (Sealand)	989.1	+26	W	1	c	38	92	4	-	2	-	10	10	800	7	*
Manchester ...	985.4	+24	WNW	1	z	38	92	6	8	2	-	4-6	10	1500	1	*
Spurn Head ...	978.4	+4	N	6	c/r	40	92	7	3	-	-	9+	9+	450	2	4
Catterick ...	984.8	+26	N'W	3	pr	35	92	6	9	-	-	9	9	1500	1	*
Tynemouth ...	984.0	+16	N	5	c/r	43	65	7	9	-	-	9	9	1500	1	3
St. Abbs Head	986.5	+20	N	4	c	43	78	8	4	6	-	4-6	7-8	1500	0	2
Leuchars ...	988.6	+28	W	1	c	32	92	8	5	-	-	9	9	4000	3	*
Renfrew (Abbots I.)	990.5	+36	-	0	z	29	97	5	5	-	-	Tr	Tr	2500	8	*
Eskdalemuir ...	988.0	+20	N'E	3	b	32	85	8	5	-	1	Tr	Tr	1500	3	*
Point of Ayre ...	988.4	+46	NE	4	b	38	85	8	8	-	-	1	1	2500	1	2
Tiree	991.8	+40	N'E	5	bc	45	65	8	5	4	1	2-3	2-3	4000	0	4
Stornoway ...	994.8	+34	NNE	4	bc	44	85	7	5	-	-	2-3	2-3	2500	1	3
Dalwhinnie ...	990.4	+40	-	0	z	27	92	6	8	2	-	4-6	10	1500	8	*
Aberdeen ...	988.7	+26	NNW	3	c/pr	37	92	8	8	-	-	9	9	2500	1	1
Wick ...	990.8	+24	NNE	6	bcq	45	75	7	9	7	3	4-6	4-6	1500	1	3
Lerwick ...	993.3	+22	N'E	2	bc	40	85	8	5	4	-	4-6	4-6	1500	1	*
Blacksod Point	996.4	+26	NNW	5	cq	48	78	8	3	6	-	4-6	7-8	1500	0	5
Malin Head ...	989.7	+36	N	6	pr	47	75	7	9	-	-	7-8	7-8	4000	0	5
Aldergrove ...	989.3	+36	NE	2	bc/pr	39	92	7	8	-	-	4-6	4-6	1500	1	*
Birr Castle ...	992.6	+16	NW	2	ir	41	85	7	5	-	-	10	10	2500	1	*
Valentia Obsy.	999.6	+28	NNW	5	bc/pr	46	75	8	3	-	-	4-6	4-6	2500	1	5
Roches Point	995.3	+24	NW'W	5	bc	42	92	8	3	-	3	2-3	2-3	2500	1	3

PAST 24 HOURS.

Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F. (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 4th. Hrs. (36)
London (Kew)		40	36		-	3.5
Croydon ...	43	40	37	0.3	0.6	4.1
S. Farnborough	44	38	33	0.2	0.6	4.7
Boscombe Down	43	34	29	1	1	3.3
Calshot (Sthmtn.)	47	41	38	Tr	0.2	4.3
Lympne ...	46	37	32	0.5	Tr	4.7
Manston ...	45	39	35	Tr	Tr	4.7
Shoeburyness ...	46	40	33		0.6	3.9
Felixstowe ...	44	40	37	0.1	Tr	2.4
Gorleston ...	42	39	38	0.2	1	*
Mildenhall ...	47	38	36	0.2	1	2.8
Cranwell ...	41	34	33	0.3	1	2.0
Birmingham ...	41	34	30	3	2	0.4
Upper Heyford	41	33	28	2	0.2	*
Ross-on-Wye	45	36	27	2	-	2.2
Hartland Point	48	42	40	4	1	2.0
Bristol ...	45	37	30	*	0.6	1.4
Portland Bill ...	52	48	*	5	0.6	*
Plymouth ...	50	42	38	2	3	2.7
The Lizard ...	49	41	*	2	4	3.3
Scilly (St. Mary's)	48	45	*	3	1	3.3
Guernsey ...	49	45	39	1	4	2.4
Pembroke ...	49	41	*	3	Tr	0.7
Holyhead ...	48	40	39	3	4	0.5
Chester (Sealand)	45	*	38	1	5	2.3
Manchester ...	42	38	36	10	18	0.0
Spurn Head ...	*	*	*	0.4	13	
Catterick ...	38	33	29	2	3	0.5
Tynemouth ...	40	31	28	-	7	
St. Abbs Head	39	34	*	-	-	*
Leuchars ...	40	30	25	-	-	5.8
Renfrew (Abbots I.)	43	28	27	0.1	2	0.7
Eskdalemuir ...	36	27	23	-	-	2.2
Point of Ayre ...	44	33	*	3	7	2.5
Tiree	42	40	38	-	1	0.0
Stornoway ...	49	39	*	Tr	1	2.9
Dalwhinnie ...	37	25	20	-	3	5.2
Aberdeen ...	40	31	24	1	1	0.0
Wick ...	46	41	*	7	2	*
Lerwick ...	49	41	*	6	-	0.0
Blacksod Point	48	41	*	5	6	*
Malin Head ...	48	41	*	5	2	0.0
Aldergrove ...	40	33	25	5	5	0.8
Birr Castle ...	46	35	33	7	2	0.2
Valentia Obsy.	48	43	39	6	6	0.0
Roches Point	48	39	*	1	1	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h. other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Temperature Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity 15h. G.M.T. % (Yesterday.)	Humidity 9h. G.M.T. % (To-day.)	Visibility 9h. (To-day.)
Kew ...	18	bbem		bcmz	*	40	36	*	-	3.9	•	•	5
Croydon ...	217	bbmzq	bcbcz	czbcm	43	40	37	0.3	0.6	4.1	•	•	
Greenwich (Royal Observatory) ...	149	bcr	rcb'	bcirm	44	36	31	0.5	0.8	3.3	74	82	4
City (Bunhill Row) ...	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park) ...	27	•	•	•	45	37	33	0.7			74	88	•
Regents Pk. (Botanic Gardens)‡...	168	•	•	•	44	36	31	-	1		74	81	•
Camden Square ...	110	b	bcer	•	44	36	28	-	1	•	•	87	•
Kensington ...	80	bc	bcc	•	45	36	27	0.2	0.4		73	83	•
Hampstead Observatory ...	450	bcpr	bc	orpra	43	38	32	Tr	1		•	92	•

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 5th.

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
40.1	0-4h. 5th.		

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 4th. December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 5th. December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris ...	996.6	WSW	5	c	45	990.4	SSW	4	c	41	50	41	0.6	Tr
Brussels ...														
Berlin ...														
Zürich ...	1010.7	WNW	3	bcjo	35	1007.1	SSW	4	c	57	•	•	0.6	-
Rome ...														

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 —Code for surface visibility.

		Objects not visible at
0	Dense fog	55 yards.
1	Thick fog	220 ,,
2	Fog	550 ,,
3	Moderate fog	1,100 ,,
4	Mist or haze	1¼ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6½ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30 —Code for State of Sea.

0	Calm.	5	Very rough.
1	Smooth.	6	High.
2	Slight.	7	Very high.
3	Moderate.	8	Preciptious.
4	Rough.	9	Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Wednesday 6th December 1939.

No 28,503

OBSERVATIONS at 13h. G.M.T. 5th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Amount Low 0–10 (12)	Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	989.0	+20	WNW	3	zo	40	75	5	5	-	-	10	10	2500
	Croydon	989.2	+16	W	3	c/pr	38	85	5	5	-	-	10	10	2500
	S. Farnborough	989.6	+18	WNW	2	c/rs	37	92	6	5	7	-	9	9+	1500
	Boscombe Down	990.9	+36	NNW	4	c/s	36	92	6	5	2	-	9+	10	1500
	Calshot (Soton.)	989.4	+12	N'W	5	iro	38	92	6	5	-	-	10	10	1500
	Lympne ...	988.7	+10	W'N	3	c	41	65	7	8	-	-	7-8	7-8	4000
	Manston ...	987.5	+18	W'N	4	zo	40	75	5	8	-	-	9+	9+	1500
2	Shoeburyness ...	988.1	+16	W	3	c	41	75	5	5	-	-	9+	9+	4000
	Felixstowe ...	985.9	+16	W	4	iro	39	85	6	5	-	-	10	10	1500
	Gorleston ...	983.7	+12	W'S	2	c/r	40	92	6	6	-	-	10	10	1500
	Mildenhall ...	985.9	+18	NW'W	5	iro	39	92	6	6	2	-	9+	10	1500
	Cranwell ...	987.4	+18	NW'N	5	zo	41	85	6	8	3	6	2-3	7-8	1500
3	Birmingham	990.8	+28	NNW	4	bc	37	75	5	-	-	1	0	2-3	-
	Upper Heyford	990.4	+26	NW	4	iro	37	92	5	5	2	-	9	10	800
4	Ross-on-Wye ...	992.5	+24	N'W	3	bc	41	75	8	7	-	3	Tr	2-3	2500
5	Hartland Point	994.6	+36	N	4	bc	43	75	8	2	-	3	4-6	4-6	2500
	Bristol	992.2	+54	NNW	3	c	40	85	7	8	3	-	7-8	9	1500
	Portland Bill ...	990.9	+24	N	5	c	44	85	8	2	-	-	7-8	7-8	4000
	Plymouth ...	994.0	+22	NNW	5	zo	45	75	8	8	7	-	4-6	4-6	1500
	The Lizard ...	995.9	+10	WNW	7	c/pr	46	85	8	8	6	-	7-8	7-8	2500
	Scilly (St.Mary's)	997.3	+8	NW	7	c	49	65	8	8	-	-	7-8	7-8	2500
	Guernsey ...	991.5	-2	NW	5	c/pr	48	75	8	8	7	-	4-6	7-8	1500
6	Pembroke ...	999.5	+30	SE	4	bc	44	85	7	8	3	1	4-6	4-6	2500
7	Holyhead ...	994.6	+28	NNW	3	bc	45	65	8	8	4	-	4-6	4-6	2500
	Chester (Sealand)	993.4	+30	NW	4	b	42	75	8	1	4	1	1	1	2500
8	Manchester ...	991.7	+22	WNW	3	zo	40	75	6	5	9	9	1	2-3	5700
10	Spurn Head ...	984.4	+16	NNW	7	PR	42	75	7	8	-	-	4-6	9+	800
	Catterick ...	990.8	+44	NNW	4	c/pr	39	85	7	9	3	-	7-8	7-8	1500
	Tynemouth ...	990.8	+24	NNW	5	c/pr	39	85	6	2	-	-	7-8	7-8	1500
11	St. Abbs Head	992.7	+26	N	3	c	43	85	8	8	6	-	4-6	7-8	1500
	Leuchars ...	994.6	+34	N	2	bc	41	92	8	8	-	-	2-3	2-3	1500
12	Renfrew (Abbots I.)	996.7	+26	NW'N	3	bc	40	75	9	8	4	2	4-6	4-6	4000
	Eskdalemuir ...	993.4	+16	N'W	4	prs	36	85	8	5	-	-	9	9	1500
	Point of Ayre ...	994.9	+28	N	5	bc	43	85	8	2	4	5	Tr	4-6	2500
13A	Tiree	999.4	+28	N	4	bc	47	65	8	2	6	-	2-3	4-6	2500
13B	Stornoway ...	1001.1	+22	NNW	4	c/pr	42	92	7	8	7	-	4-6	7-8	2500
15	Dalwhinnie ...	997.0	+24	N	2	iS	33	97	5	6	-	-	10	10	1500
	Aberdeen ...	995.9	+38	N	3	c/phr	42	85	7	8	-	3	7-8	7-8	2500
	Wick	998.0	+28	NNE	3	bcq	45	75	8	3	4	1	4-6	4-6	2500
16	Lerwick... ...	997.3	+10	N	3	c/pr	42	85	8	8	7	-	4-6	7-8	1500
17	Blacksod Point..	1002.2	+30	N	4	c	49	85	8	9	-	-	7-8	7-8	800
18	Malin Head ...	999.1	+40	N	4	bc	47	65	8	1	6	-	4-6	4-6	5700
	Aldergrove ...	997.5	+30	NNW	1	bc	42	85	7	1	-	-	2-3	2-3	2500
19	Birr Castle ...	999.7	+22	NW	2	c	46	85	8	5	-	-	7-8	7-8	2500
20	Valentia Obsy. †	1004.4	+22	N'W	6	bc/pr	50	75	8	3	-	-	4-6	4-6	2500
	Roches Point ...	999.5	+18	NW'N	6	pr	49	85	8	3	4	-	7-8	7-8	1500

OBSERVATIONS at 18h. G.M.T. 5th. December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Amount Low 0–10 (26)	Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	993.8	+30	WNW	3	b	39	75	7	-	-	-	0	0	-	1	*
Croydon	993.7	+28	W'N	3	bf	37	85	3	-	-	-	0	0	-	1	*
S. Farnborough	994.5	+32	W'N	2	zo	37	85	5	5	-	-	2-3	2-3	4000	1	*
Boscombe Down	996.1	+26	NW'W	4	b	37	85	6	-	4	-	0	Tr	-	1	*
Calshot (Soton.)	995.0	+30	NW	4	zo	40	75	5	-	-	-	0	0	-	1	1
Lympne	992.1	+34	WNW	3	bc/r	37	92	5	5	-	-	4-6	4-6	1500	1	§1
Manston	991.3	+26	NW	5	zo	41	85	5	6	2	-	9+	10	1500	1	*
Shoeburyness	991.5	+20	W'N	3	c	39	85	5	5	-	-	7-8	7-8	1500	1	*
Felixstowe	988.9	+22	NW	4	ido	41	85	6	5	2	-	7-8	10	800	1	3
Gorleston	987.3	+8	W	3	iro	41	85	6	6	-	-	10	10	2500	1	2
Mildenhall	990.2	+24	WNW	5	m	39	85	4	5	-	-	10	10	1500	1	*
Cranwell	991.1	+16	NW	6	iro	37	97	6	6	2	-	7-8	10	1500	1	*
Birmingham	995.8	+24	NNW	4	bc	38	85	6	5	7	-	1	4-6	1500	1	*
Upper Heyford	994.2	+12	NW	4	zo	37	85	5	-	4	-	0	Tr	-	1	*
Ross-on-Wye	996.8	+20	W	2	c	39	75	8	5	-	-	9+	9+	2500	1	*
Hartland Point	999.3	+26	NNW	4	c	45	75	8	8	-	-	7-8	7-8	2500	1	3
Bristol	997.5	+26	NW	3	b	38	85	7	-	4	8	0	1	-	2	*
Portland Bill	996.6	+20	NW	5	bc	44	92	8	4	-	-	4-6	4-6	4000	1	4
Plymouth	999.5	+38	NW	2	zo	42	75	6	3	-	-	1	1	2500	1	2
The Lizard	1001.2	+16	NW	4	c	44	85	7	8	2	-	7-8	9+	1500	1	2
Scilly (St.Mary's)	1001.4	+24	NW'N	6	bc/pr	48	75	8	9	6	-	4-6	4-6	1500	1	4
Guernsey	997.8	+36	NW'N	2	bc	45	65	8	2	1	-	2-3	4-6	2500	1	4
Pembroke	1000.7	+22	N'W	5	bc	44	75	7	8	-	-	2-3	2-3	2500	1	2
Holyhead	999.8	+34	N	6	bc/pr	46	75	8	8	-	-	4-6	4-6	2500	1	4
Chester (Sealand)	997.7	+30	NNW	4	zo	40	75	6	5	-	-	1	1	2500	1	*
Manchester	996.8	+34	NW	4	zo	39	85	5	5	3	-	4-6	7-8	2500	1	*
Spurn Head	989.2	+16	NE'N	5	c/phr	39	97	7	9	-	-	10	10	800	2	4
Catterick																
Tynemouth	996.4	+30	NE	6	c	46	65	6	2	-	-	7-8	7-8	1500	1	4
St. Abbs Head	999.2	+40	N	5	c/pr	44	92	8	8	6	-	4-6	7-8	1500	1	4
Leuchars	1001.6	+40	NNW	1	b	39	85	8	5	-	-	Tr	Tr	4000	1	*
Renfrew (Abbots I.)	1004.0	+46	W'S	2	b	39	75	8	4	-	-	Tr	Tr	2500	4	*
Eskdalemuir	1000.4	+40	N'E	4	bc	37	85	8	5	-	-	4-6	4-6	1500	5	*
Point of Ayre	1001.0	+28	NNE	5	b	44	75	8	4	-	-	Tr	Tr	2500	0	4
Tiree	1005.2	+32	N'E	4	bc	47	75	8	8	-	-	2-3	2-3	1500	0	4
Stornoway	1006.4	+20	NNW	3	c/pr	43	85	7	8	7	-	7-8	7-8	2500	1	2
Dalwhinnie	*	+36	SE'S	1	c	34	97	7	4	2	-	4-6	7-8	2500	7	*
Aberdeen	1002.7	+40	NNW	2	b	37	85	7	8	-	-	1	1	2500	1	3
Wick	1003.8	+26	NW	3	bc	42	85	8	8	6	-	2-3	2-3	2500	1	2
Lerwick	1003.0	+16	N	3	c/pr	43	85	7	8	7	-	7-8	9	800	1	*
Blacksod Point	1008.1	+30	N	3	bc	46	85	8	9	-	-	2-3	2-3	800	1	5
Malin Head	1005.0	+38	N	5	pr	47	85	7	9	-	-	4-6	4-6	4000	0	5
Aldergrove	1003.9	+42	N'W	2	b	38	85	7	3	-	-	Tr	Tr	2500	1	*
Birr Castle	1006.0	+32	NNW	1	b	41	85	8	-	-	-	0	0	-	1	*
Valentia Obsy. †	1008.5	+30	N'W	6	pr	49	85	7	9	-	-	7-8	7-8	1500	1	5
Roches Point	1004.8	+36	N	5	bc	47	85	8	3	-	3	1	2-3	2500	1	3

PAST 24 HOURS.

Stations	Weather 7h.—13h. 5th. (37)	Weather 13h.—18h. 5th. (38)	Weather 18h. 5th to 1h. 6th (39)	Weather 1h.—7h. 6th (40)
London (Kew)	bcmoz	czocromob	b,cirorro	circ
Croydon	bcmoczpro	cmopro,bf	bfcmoido	omrocm
S. Farnborough	bzobros	cromobcb	b,crroro	crocmo
Boscombe Down	bmxcrsdo	cmobcbmo	crobcmob	m]bmocm
Calshot (Soton.)	bcpsirom	cirobmo	bcirmo	ir bpro
Lympne	cprocbmc	cmrobc	bccmopro	cm lcqpr
Manston	bcmocz	czoirocz	cirocmo	bccprh
Shoeburyness	bccmo	cirmo	mo+lp	c+rrbc
Felixstowe	cprcmoiro	oro,ido	idoirocm	idoirobcm
Gorleston	coiro	orro	bcpro+lc	cbcq
Mildenhall	idoiromo	cmoom	cmcirpro	proqcpro
Cranwell	rrors,cm	c,oorsir	rrirmo	irircm
Birmingham	cprs	b	bcprso	bcb
Upper Heyford	cmocir	bcmcmbc	bcroomcr	m]cromcm
Ross-on-Wye	rcrsobc	bbc	cbc	b
Hartland Point	cPHR	bcc	cbcp	bc
Bristol	crproc	cbcb	bbcpobq	bcbq
Portland Bill	bcc	cbc	bcb	bc
Plymouth	bccpro	bcbzo	bmob	b
The Lizard	bcprc	bcprc	prbc	prcbc
Scilly (St.Mary's)	cbcc	cpoq	bc	bc
Guernsey	prPR	cqbcc	bccq	cq
Pembroke	bc	bccprbc	bc	bcb
Holyhead	bcbbc	cprobc	bcbbc	bcb
Chester (Sealand)	cso,sob	bbcirobmo	bbccmob	z]bcbzbmo
Manchester	cmoxbcmo	bcczrom	bmo	bmobcmo
Spurn Head	PRq	qPRH	qPR	cqpr
Catterick	prsmopr		bpropr	propr
Tynemouth	cp	cphc	cbcpo	bc
St. Abbs Head	prc	prc	bcpr	cbc
Leuchars	cxcproc,b	bbcb	bwxb	b,cproib
Renfrew (Abbots I.)	bxmobc	bcb	bbmobx	bmobx
Eskdalemuir	bxcprso	pshpros	bcbx	bbccx
Point of Ayre	bbc	cbcb	b	b
Tiree	bc	bc	bc	bc
Stornoway	bccPRq	cPR	cpro	c
Dalwhinnie	cis	ciS	* *	cr
Aberdeen	cPRH	cPRHb	bprob	bbcpro
Wick	cbcq	bc	probc	bc
Lerwick	bccpro	cpro	c	cbc
Blacksod Point	preq	bc	bc	bc
Malin Head	cbccbc	cqphrbc	bcc	c
Aldergrove	cbmobc	bcb	bbx	bx
Birr Castle	c	bcb	b	bbcx
Valentia Obsy. †	bcqprobc	bccprocpc	probcprc	bbcbwbx
Roches Point	bccpo	bc	b	bw

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_o$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_o$/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r$_o$, slight rain. rr, continuous rain.
<, less than (for cloud height). ⚑gale.
⊕ Solar halo. Ⓘ lunar halo. ⌂Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

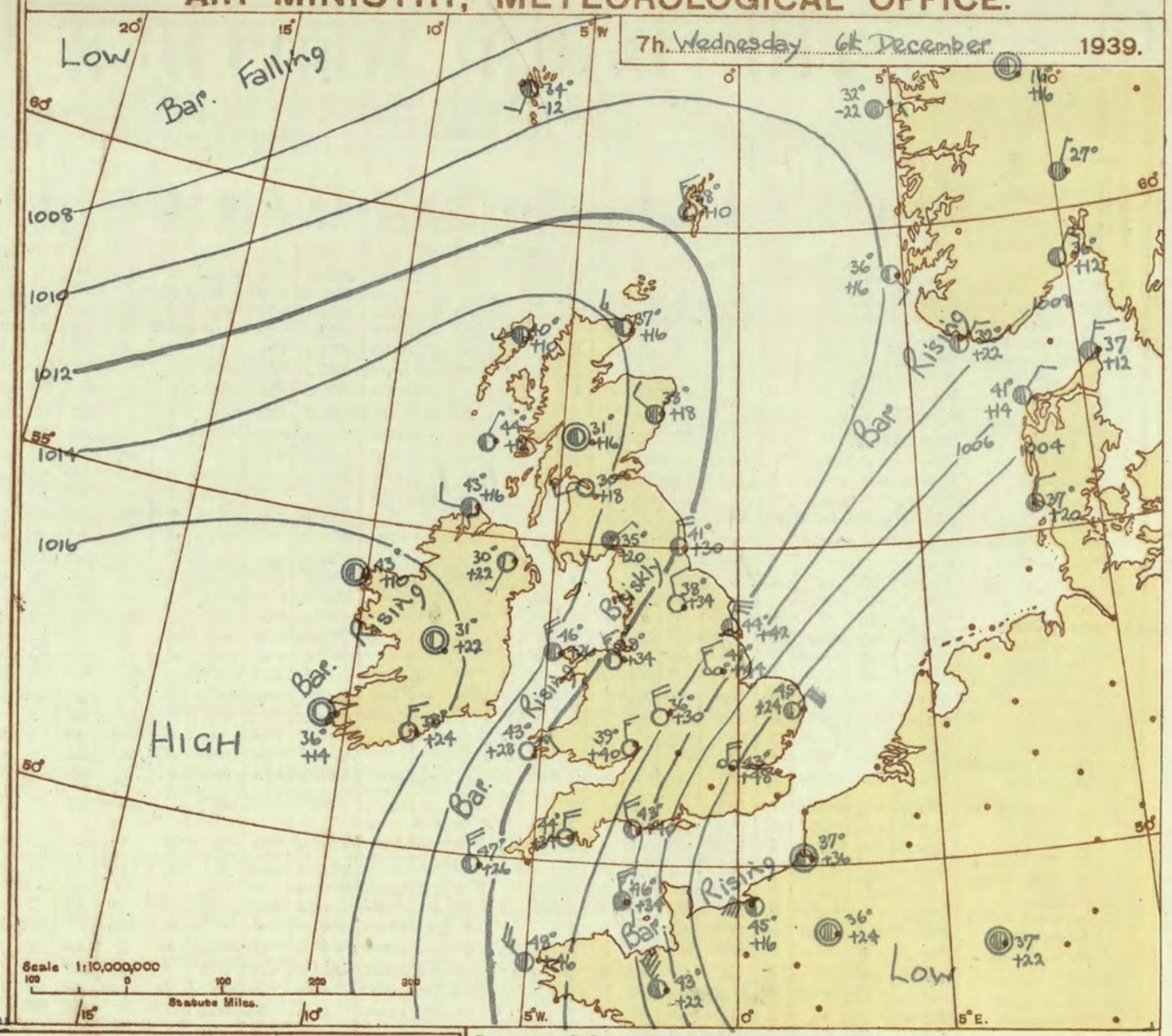
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Wednesday 6th December 1939.



Districts.	Forecasts for the 24 hours commencing 12 noon, G.M.T. 6th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ...	Wind north fresh becoming light and variable; local showers today, fine tonight and tomorrow; cold with sharp frost at night.
4 W. Midlands ... 5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Wind light variable, fine; cold with frost at night.
13 A. W. Scotld. B.N.W. Scotland. 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands 17 N. W. Ireland 18 N. E. Ireland	Wind light variable becoming west to southwest; fine today, becoming cloudy with rain later tomorrow; rather cold but temperature rising tomorrow.
19 S. E. Ireland 20 S. W. Ireland	As 4 - 12

Barometer. Isobars are drawn for intervals of two millibars.
Wind, Weather Symbols. For explanation see opposite page.
Sea Disturbance. Rough. High.
Barometric Change from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

General Inference.

A ridge of high pressure over the British Isles is moving southeastwards before a depression to the west of Iceland. The weather will be mainly fair today but there will be showers along the east coast and in Southeast England. Tonight conditions will become cloudy with a westerly wind in Scotland but over England there will be clear skies and a sharp frost.

Further Outlook.

Milder unsettled weather with west or southwest winds.

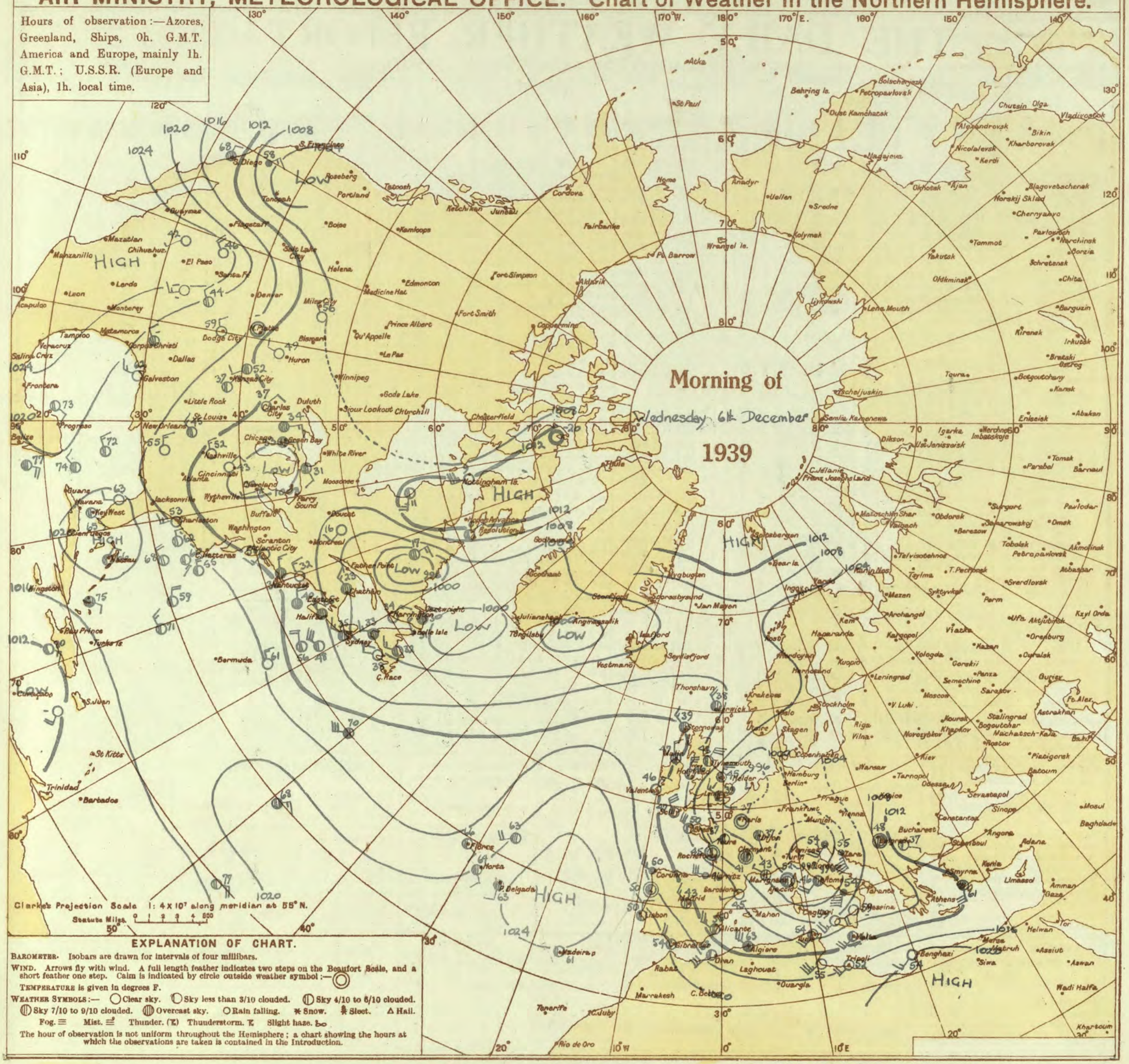
Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

Hours of observation :—Azores, Greenland, Ships, 0h. G.M.T. America and Europe, mainly 1h. G.M.T.; U.S.S.R. (Europe and Asia), 1h. local time.



EXPLANATION OF CHART.

BAROMETER. Isobars are drawn for intervals of four millibars.

WIND. Arrows fly with wind. A full length feather indicates two steps on the Beaufort Scale, and a short feather one step. Calm is indicated by circle outside weather symbol :—

TEMPERATURE is given in degrees F.

WEATHER SYMBOLS :— Clear sky. Sky less than 3/10 clouded. Sky 4/10 to 6/10 clouded. Sky 7/10 to 9/10 clouded. Overcast sky. Rain falling. Snow. Sleet. Hail. Fog. Mist. Thunder. Thunderstorm. Slight haze.

The hour of observation is not uniform throughout the Hemisphere; a chart showing the hours at which the observations are taken is contained in the Introduction.

Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Wednesday 6th December 1939.

No. 28,503.

OBSERVATIONS at 1 hr. G.M.T. 6th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon	217	997·3	+22	NW	3	o/d	39	92	5	-	2	-	10	10	1500
	S. Farnborough	226	998·5	+22	NW	4	r°r°	40	85	6	6	2	-	10	10	1500
	Boscombe Down	417	1000·0	+26	NW'N	5	z°	40	75	6	-	-	-	0	0	-
	Calshot (Sthmtn.)	8	998·4	+14	NNW	5	ir°	41	85	5	6	2	-	10	10	800
	Lympne	346	995·3	+12	W'N	2	cl	38	92	6	5	-	-	9+	9+	800
	Manston	154	994·5	*	NWN	4	z°	42	*	6	5	-	-	10	10	800
2	Shoeburyness	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe	15	993·5	+18	NW	3	c/r	40	97	5	5	-	-	9+	9+	800
	Gorleston	5	994·8	+40	NNE	5	c/pr	42	85	7	5	-	-	7-8	7-8	2500
	Mildenhall	19	996·4	+38	NNW	4	pr	42	85	7	8	-	-	9	9	7200
	Cranwell	240	1000·3	+46	NE'N	4	ir°	42	92	5	6	-	-	9+	9+	1500
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1000·2	+32	N'E	4	ir°	41	85	6	5	2	-	7-8	10	1500
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1006·0	+30	N	5	bc	46	85	8	5	-	-	2-3	2-3	4000
	Bristol	209	1003·2	+30	N	5	bc	42	75	7	8	-	-	4-6	4-6	2500
	Portland Bill	32	1000·8	+22	NNW	4	b	45	92	8	-	-	-	0	0	-
	Plymouth	82	1005·3	+30	NNW	3	b	43	75	7	-	-	-	0	0	-
	The Lizard	240	1006·9	+20	NW	3	bc	42	92	8	8	-	-	4-6	4-6	2500
	Scilly (St. Mary's)	163	1008·2	+26	NNW	6	bc	47	75	8	8	-	-	4-6	4-6	1500
	Guernsey	175	1001·6	+16	NW'N	5	cq	46	65	7	2	1	-	4-6	7-8	1500
6	Pembroke	142	1007·6	+24	NE'N	4	bc	45	75	7	8	-	-	2-3	2-3	2500
7	Holyhead	26	1008·4	+36	N	6	bc	46	75	8	8	-	-	4-6	4-6	2500
	Chester (Sealand)	16	1006·3	+34	NW'N	4	z°	42	75	6	5	-	-	4-6	4-6	2500
8	Manchester	70	1005·2	+34	NNW	4	z°	38	85	6	5	-	-	1	1	2500
10	Spurn Head	29	998·5	+44	NNE	7	cq	45	85	7	8	-	-	9+	9+	1500
	Catterick	175	1005·0	+34	NNW	2	bc/pr	39	92	8	3	-	-	2-3	2-3	1500
	Tynemouth	108	1006·4	+40	NE	6	bc/pr	43	75	7	2	-	-	4-6	4-6	2500
11	St. Abbs Head	280	1007·4	+32	N	4	phr	43	92	8	8	6	-	4-6	4-6	2500
	Leuchars	36	1008·3	+24	NNW	2	b	40	85	8	5	-	-	1	1	4000
12	Renfrew (Abbots I.)	19	1010·5	+22	-	0	z°	34	85	6	5	-	-	Tr	Tr	2500
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1008·6	+32	NNE	4	b	44	75	8	-	-	-	0	0	-
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway	80	1012·1	+22	NW	3	c	39	85	7	5	-	-	9	9	2500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick	81	1009·6	+24	NW	4	bc	41	85	7	5	1	-	2-3	4-6	2500
16	Lerwick	156	1008·7	+18	NNW	4	c	38	85	7	8	7	-	4-6	7-8	1500
17	Blacksod Point	18	1014·1	+16	N'W	1	bc	43	85	8	3	-	-	2-3	2-3	2500
18	Malin Head	84	1011·5	+24	N	3	c	47	85	7	8	-	-	7-8	7-8	5700
	Aldergrove	268	1010·9	+26	N	2	b	36	85	7	-	-	-	0	0	-
19	Birr Castle	173	1012·9	+28	NNW	1	b	33	97	8	-	-	"	0	0	-
20	Valentia Obsy.	30	1014·7	+22	N'E	3	b	46	75	8	4	-	-	1	1	2500
	Roches Point	22	1012·8	+28	N	4	b	43	92	8	-	-	-	0	0	-

OBSERVATIONS at 7 hr. G.M.T. 6th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Temp. Max. Day 7h–18h °F. (31)	Temp. Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 5th. Hrs. (36)
London (Kew)	1006·2	+52	N'W	4	c	43	85	7	5	-	-	10	10	1500	1	*	40	38	33	2	0·3	0·5
Croydon	1005·2	+48	N	4	z°	43	85	6	5	-	-	7-8	7-8	4000	1	*	40	37	33	0·6	1	1·0
S. Farnborough	1006·4	+40	NW'N	4	z°	41	85	6	5	-	-	9	9	2500	1	*	39	37	34	0·5	2	0·8
Boscombe Down	1008·2	+42	NNW	4	z°	39	85	6	5	-	-	9	9	2500	1	*	39	36	33	3	0·2	0·4
Calshot (Sthmtn.)	1005·7	+44	N'W	6	pr	43	75	6	5	-	-	9+	9+	1500	1	4	43	39	36	1	0·4	1·0
Lympne	1002·7	+56	NNE	4	pr	41	92	7	9	-	-	9+	9+	1500	1	§*	42	36	32	0·3	3	2·3
Manston	1002·6	+52	ENE	6	phr	44	85	6	8	-	-	9+	9+	1500	1	*	42	39	37	Tr	4	2·1
Shoeburyness	1004·3	+50	N	3	bc	40	85	6	8	-	-	2-3	2-3	2500	1	*	42	38	33	0·6	2	1·5
Felixstowe	1004·1	+62	NE	3	z°	41	85	6	8	-	-	1	1	2500	1	3	42	39	36	1	3	0·0
Gorleston	1004·8	+24	NE'E	4	bc	45	75	6	5	-	-	4-6	4-6	2500	1	3	41	40	40	3	1	*
Mildenhall	1005·6	+46	N	3	pr	41	85	7	8	-	3	7-8	9+	5700	1	*	43	38	35	1	1	0·0
Cranwell	1008·9	+44	NNW	3	z°	41	97	6	5	-	-	9+	9+	4000	1	*	42	35	34	3	10	2·7
Birmingham	1010·5	+30	NNW	4	b	36	85	5	-	-	-	0	0	-	1	*	40	36	32	0·6	1	1·8
Upper Heyford	1008·5	+44	N	4	ir°	41	75	6	5	-	-	9	9	2500	1	*	38	35	32	Tr	2	*
Ross-on-Wye	1011·2	+40	N'W	3	b	39	85	8	5	-	-	Tr	Tr	2500	1	*	42	38	32	2	-	3·2
Hartland Point	1011·9	+30	N	5	bc	45	85	8	8	-	-	4-6	4-6	2500	1	4	45	42	41	1	1	3·9
Bristol	1010·2	+32	N	4	b	40	75	6	5	-	-	1	1	4000	2	*	41	38	33	1	0·1	1·7
Portland Bill	1006·8	+40	NNW	4	bc	43	92	8	5	-	-	4-6	4-6	4000	1	4	50	41	*	-	-	*
Plymouth	1011·3	+34	N	4	b	44	75	8	-	-	-	0	0	-	1	2	48	42	39	1	-	4·2
The Lizard	1012·2	+28	NW	4	bc	43	85	8	8	-	-	2-3	2-3	2500	1	3	48	40	*	1	1	3·6
Scilly (St. Mary's)	1013·1	+26	N'W	5	bc	47	75	8	2	-	-	4-6	4-6	2500	1	3	49	47	*	0·3	-	3·1
Guernsey	1007·6	+34	N'W	5	c	46	75	7	8	-	-	10	10	1500	1	4	48	44	37	1	-	4·1
Pembroke	1013·8	+28	NE	3	b	43	75	8	1	-	-	Tr	Tr	2500	1	2	46	41	*	4	4	1·9
Holyhead	1013·4	+26	NNE	5	bc	46	75	8	2	-	-	2-3	2-3	2500	1	3	47	44	41	Tr	-	4·7
Chester (Sealand)	1013·1	+34	NNW	3	b	38	85	6	5	-	-	1	1	4000	1	*	43	38	33	0·2	Tr	4·0
Manchester	1012·6	+26	NW	3	z°	36	85	6	5	-	-	1	1	2500	1	*	41	35	27	0·1	-	2·1
Spurn Head	1008·4	+42	NNE	6	cq	44	75	7	8	4	-	4-6	7-8	1500	1	4	43	39	*	9	7	0·1
Catterick	1011·9	+34	NNW	2	bc	38	85	8	3	-	-	2-3	2-3	1500	1	*		37			4	
Tynemouth	1012·1	+30	N	4	bc	41	85	7	2	-	-	4-6	4-6	2500	1	3	46	39	35	2	0·4	*
St. Abbs Head	1011·8	+20	N	4	bc	43	92	8	4	4	-	4-6	4-6	2500	0	3	44	41	*	6	2	*
Leuchars	1013·2	+22	NW	2	b	37	85	8	2	4	-	Tr	1	4000	1	*	43	37	27	0·3	Tr	2·2
Renfrew (Abbots I.)	1014·7	+18	SW'W	2	b	30	92	7	-	-	-	0	0	-	3	*	42	28	23	-	-	3·1
Eskdalemuir	1013·8	+20	NE'N	1	c	35	85	8	5	1	-	4-6	7-8	1500	5	*	38	35	28	2	-	2·0
Point of Ayre	1014·1	+22	NE'N	3	b	44	75	8	-	4	-	0	Tr	-	0	2	45	43	*	-	-	4·4
Tiree	1014·1	+12	N'E	1	bc	44	85	8	2	4	-	2-3	4-6	2500	0	2	47	43	34	-	-	4·0
Stornoway	1014·2	+10	WSW	1	c	40	85	7	5	-	-	7-8	7-8	2500	1	1	44	39	*	2	Tr	1·2
Dalwhinnie	*	+16	-	0	c	31	97	7	4	6	-	4-6	7-8	2500	8	*	36	31	25	8	-	0·0
Aberdeen	1013·2	+18	NW'N	2	c/pr	38	92	7	8	-	-	7-8	7-8	2500	1	2	44	35	31	5	1	0·8
Wick	1013·3	+16	NW	3	bc	37	75	7	5	7	-	2-3	4-6	2500	1	2	46	37	*	-	0·2	*
Lerwick	1011·4	+10	NNW	3	bc	38	85	8	5	-	-	4-6	4-6	1500	1	*	44	37	*	1	-	1·8
Blacksod Point	1016·0	+10	-	0	bc	43	92	8	4	3	-	2-3	4-6	1500	0	3	49	41	*	5	-	
Malin Head	1014·3	+16	W	2	c	43	92	7	8	-	-	7-8	7-8	5700	0	3	48	41	*	0·3	Tr	4·3
Aldergrove	1015·6	+22	SSW	1	b	30	97	7	-	-	1	0	Tr	-	1	*	44	28	19	-	-	5·2
Birr Castle	1016·8	+22	-	0	bc	31	97	8	-	-	8	0	2-3	-	1	*	47	29	26	2	-	0·8
Valentia Obsy.	1017·9	+14	-	0	b	36	92	8	5	-	-	1	1	4000	1	2	49	36	29	0·6	1	3·3
Roches Point	1016·9	+24	N	3	b	38	92	8	-	-	-	0	0	-	1	3	50	38	*	Tr	Tr	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Temperature Night Min. °F.	Temperature Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h. (To-day)
Kew	18	bcm z°	cz°cr°nb	bcir°r°	40	38	33	2	0·3	0·5	*	*	6
Croydon	217	bcmcz°pr°	cmpr°bf	bfcmoid°	40	37	33	0·6	1	1·0	*	*	
Greenwich (Royal Observatory)	149	cm	crcbm	bcrdcm	40	39	32	1	1	0·0	88	83	4
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	44	37	34	1			87	84	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*	43	36	31	Tr	1		82	83	*
Camden Square	110	or	or	*	43	36	32	0·3	0·5	*	*	87	*
Kensington	80	bcc	bcpr	*	43	38	30	0·1	1		83	83	*
Hampstead Observatory	450	bcpr	od	or	43	36	35	0·4	1		*	92	*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 6th

South Kensington Max.	Time.	Min.	Time.

Kew Observatory Max.	Time.	Min.	Time.
0·2	15h. 5th.	<0·1	0-7h 6th

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 5th December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	7h. G.M.T. 6th December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	992·2	S	6	phr	43	1000·6	-	0	z°	36	46	36	1	2
Brussels														
Berlin														
Zürich														
Rome	1001·1	WNW	5	c	59	996·3	ENE	2	r	50	*	*	*	2

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22—Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6¼ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30—Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Thursday 7th December 1939.

No. 28504

OBSERVATIONS at 13h. G.M.T. 6th December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)...	1013·1	+24	N'W	4	pr	44	92	6	5	3	-	7-8	9	2500
	Croydon	1012·5	+26	N	3	m/f	45	85	4	8	6	-	9	9+	2500
	S. Farnborough	1012·9	+20	N	4	Z_o	45	75	6	5	3	-	4-6	7-8	1500
	Boscombe Down	1014·1	+18	N'E	5	Z_o	44	85	6	1	3	-	2-3	2-3	2500
	Calshot (Soton.)	1013·1	+26	N	3	bc	45	75	7	5	4	-	2-3	2-3	2500
	Lympne ...	1011·2	+22	N	3	bc	44	85	7	2	-	-	4-6	4-6	1500
	Manston ...	1010·4	+22	NNE	5	Z_o	45	85	6	8	3	-	2-3	2-3	1500
2	Shoeburyness ...	1011·8	+24	N'W	3	bc/pr	45	85	8	8	9	-	4-6	4-6	2500
	Felixstowe ...	1011·0	+22	N	3	c/pr	45	86	8	8	6	-	7-8	7-8	2500
	Gorleston ...	1011·0	+20	N'E	5	c/r	45	85	6	8	-	-	7-8	7-8	2500
	Mildenhall ...	1012·9	+26	N'E	4	bc	45	75	7	7	3	-	4-6	4-6	2500
	Cranwell ...	1014·6	+18	NNW	3	Z_o	44	85	6	8	-	-	Tr	Tr	2500
3	Birmingham	1016·2	+14	NNW	3	b	41	75	5	1	-	-	Tr	Tr	1500
	Upper Heyford	1014·9	+18	N'E	3	b	44	75	7	-	-	-	0	0	-
4	Ross-on-Wye ...	1016·0	+16	N'W	3	b	44	75	8	-	-	1	0	Tr	-
5	Hartland Point	1016·9	+20	NE	4	bc	46	75	8	1	-	5	2-3	2-3	2500
	Bristol	1015·8	+10	N	3	b	44	75	6	1	-	-	Tr	Tr	2500
	Portland Bill ...	1013·7	+20	NNE	4	bc	45	92	8	5	-	-	4-6	4-6	4000
	Plymouth ...	1016·4	+16	N	3	b	47	65	8	1	-	4	Tr	1	2500
	The Lizard ...	1018·3	+24	N	3	bc	48	75	8	8	6	-	4-6	4-6	2500
	Scilly (St. Mary's)	1019·0	+30	N	4	c	49	75	8	8	4	-	4-6	7-8	1500
	Guernsey ...	1013·1	+20	N'W	2	c	46	75	7	8	1	-	4-6	7-8	1500
6	Pembroke ...	1017·0	+12	S'W	1	bc	48	75	8	7	7	-	2-3	2-3	2500
7	Holyhead ...	1017·3	+14	-	0	c	48	75	8	2	3	6	2-3	7-8	2500
	Chester (Sealand)	1017·1	+14	NW'N	2	bc	46	85	8	2	3	4	2-3	2-3	2500
8	Manchester ...	1016·7	+14	NW	2	Z_o	48	75	5	5	8	-	Tr	Tr	4000
10	Spurn Head ...	1014·2	+12	N'E	3	bc	46	65	7	7	-	-	2-3	2-3	4000
	Catterick ...	1015·8	+14	NNW	1	bc	44	85	7	5	-	-	4-6	4-6	4000
	Tynemouth ...	1015·5	+12	NNW	3	Z_o	45	75	6	2	3	-	4-6	4-6	2500
11	St. Abbs Head	1016·5	+24	NNW	2	bc	42	85	8	7	4	1	2-3	4-6	2500
	Leuchars ...	1016·2	+8	W	1	bc	43	75	8	-	3	9	0	2-3	-
12	Renfrew (Abbots I.)	1017·3	+6	-	0	bcf	37	85	3	-	4	2	0	4-6	-
	Eskdalemuir ...	1016·6	+10	N	2	bc	41	75	8	5	3	1	1	2-3	2500
	Point of Ayre ...	1017·3	+6	NE'E	2	bc	46	75	8	4	4	4	2-3	4-6	4000
13A	Tiree	1015·4	0	S	2	bc	49	75	8	7	3	-	2-3	4-6	2500
13B	Stornoway ...	1014·6	-4	S	3	bc	45	75	8	5	8	6	2-3	4-6	4000
15	Dalwhinnie ...	1017·0	+2	S	1	b	37	75	8	4	4	1	1	1	4000
	Aberdeen ...	1015·3	+4	NW'N	2	bc	40	75	8	5	-	9	2-3	4-6	5700
	Wick	1015·1	+2	SW	2	bc	40	85	8	4	6	2	2-3	4-6	2500
16	Lerwick... ...	1013·2	+4	NW	3	c	40	75	8	5	7	-	4-6	7-8	1500
17	Blacksod Point...	1016·7	-6	S	3	c	48	85	8	9	-	3	4-6	7-8	1500
18	Malin Head ...	1016·3	+2	S	2	c	46	85	8	5	-	4	4-6	7-8	5700
	Aldergrove ...	1017·7	+2	SE'E	1	bc	42	85	7	-	3	9	0	4-6	
19	Birr Castle ...	1018·2	+2	S	1	b	46	85	8	-	-	4	0	1	-
20	Valentia Obsy. †	1018·8	-2	SSE	2	c	47	85	8	1	8	2	1	7-8	4000
	Roches Point ...	1019·0	+2	N'W	3	Z_o	47	85	6	-	-	5	0	4-6	-

OBSERVATIONS at 18h. G.M.T. 6th December

District	Stations.	Barom. at M.S.L. ·mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility. 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount Low 0–10 (26)	Cloud. Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)...	1018·1	+30	N'W	2	Z_o	41	85	6	5	-	-	2-3	2-3	2500	1	*
	Croydon	1017·4	+30	N	2	m	42	85	4	-	-	-	0	0	-	1	*
	S. Farnborough	1018·3	+30	NW	2	m	36	85	4	4	3	-	Tr	1	2500	1	*
	Boscombe Down	1019·1	+32	N'W	2	Z_o	36	92	6	-	-	-	0	0	-	0	*
	Calshot (Soton.)	1018·1	+30	N'W	3	Z_o	42	75	5	-	-	-	0	0	-	1	1
	Lympne ...	1016·3	+34	N	4	b	41	85	7	-	-	-	0	0	-	1	§ 2
	Manston ...	1015·5	+26	NNE	4	b	44	85	7	5	-	-	Tr	Tr	1500	1	*
2	Shoeburyness ...	1016·6	+32	N	2	b	40	85	6	-	1	-	0	1	-	1	*
	Felixstowe ...	1015·6	+28	N	2	b	40	85	7	-	-	-	0	0	-	1	1
	Gorleston ...	1015·0	+20	NW'N	3	bc	44	75	7	8	-	-	4-6	4-6	4000	1	3
	Mildenhall ...	1017·2	+28	NW	2	Z_o	35	97	6	-	-	-	0	0	-	1	*
	Cranwell ...	1017·8	+18	NW	2	Z_o	39	97	6	-	-	-	0	0	-	1	*
3	Birmingham	1019·3	+18	NW	2	bf+	38	85	3	-	-	-	0	0	-	1	*
	Upper Heyford	1018·9	+16	N	1	Z_o	38	85	5	-	-	-	0	0	-	1	*
4	Ross-on-Wye ...	1019·3	+24	W	1	Z_o	37	85	5	5	-	-	Tr	Tr	1500	1	*
5	Hartland Point	1018·9	+10	NE	3	bc	44	75	8	4	-	-	4-6	4-6	2500	1	2
	Bristol	1019·7	+14	-	0	Z_o	37	85	6	-	-	-	0	0	-	1	*
	Portland Bill ...	1018·7	+20	NNE	3	bc	41	85	7	5	-	-	4-6	4-6	4000	1	3
	Plymouth ...	1019·2	+18	NE	3	Z_o	42	75	5	-	-	1	0	Tr	-	1	1
	The Lizard ...	1019·7	+8	-	0	bc	40	92	8	8	-	-	2-3	2-3	2500	1	2
	Scilly (St. Mary's)	1019·6	+6	N'W	2	c	47	85	8	8	6	-	4-6	9+	1500	1	2
	Guernsey ...	1018·0	+32	N'E	1	c	47	75	7	8	-	-	10	10	1500	1	4
6	Pembroke ...	1019·8	+12	-	0	bc	43	85	8	5	4	-	2-3	2-3	2500	1	1
7	Holyhead ...	1018·7	+10	S'E	1	bc	42	85	6	5	-	-	2-3	2-3	4000	1	1
	Chester (Sealand)	1018·9	+10	-	0	Z_o	35	92	5	5	4	-	Tr	1	2500	1	*
8	Manchester ...	1019·1	+22	-	0	m	32	92	4	-	3	-	0	Tr	-	1	*
10	Spurn Head ...	1017·3	+14	NNW	2	bc	41	92	6	-	4	-	0	2-3	-	0	2
	Catterick ...	1018·6	+16	-	0	Z_o	37	92	5	-	-	-	0	0	-	1	
	Tynemouth ...	1018·3	+14	W	3	bc	40	85	6	5	3	-	2-3	2-3	2500	1	1
11	St. Abbs Head	1017·7	+8	WNW	1	b	38	85	8	-	-	-	0	0	-	0	1
	Leuchars ...	1016·7	+6	-	0	b	34	92	8	-	-	-	0	0	-	1	*
12	Renfrew (Abbots I.)	1017·6	+2	-	0	bf+	31	92	2	5	-	-	Tr	Tr	2500	3	*
	Eskdalemuir ...	1019·0	+10	-	0	b	29	97	8	-	-	-	0	0	-	3	*
	Point of Ayre ...	1018·3	+2	SW'S	1	b	34	97	8	4	-	-	Tr	Tr	2500	0	1
13A	Tiree	1014·2	-2	SSE	3	bc	35	92	8	8	-	-	4-6	4-6	1500	0	2
13B	Stornoway ...	1013·8	-2	S	3	bc	43	85	7	3	7	-	2-3	4-6	2500	1	1
15	Dalwhinnie ...	*	+2	S	2	c	32	92	7	4	6	-	4-6	9	2500	8	*
	Aberdeen ...	1016·9	+2	-	0	b	34	85	5	5	-	-	1	1	4000	3	1
	Wick	1014·9	0	SW	3	bc	36	85	8	5	4	-	2-3	2-3	2500	1	1
16	Lerwick... ...	1013·9	+2	SW	2	c	40	85	8	5	7	-	4-6	7-8	1500	1	*
17	Blacksod Point...	1014·8	-8	S	4	c	48	92	8	8	-	-	10	10	1500		
18	Malin Head ...	1015·8	0	S	2	bc	42	85	8	4	-	-	4-6	4-6	4000	0	3
	Aldergrove ...	1017·9	+6	SE'S	1	b	33	92	7	5	-	-	1	1	2500	1	*
19	Birr Castle ...	1018·1	-2	S	1	b	37	97	8	-	-	-	0	0	-	1	*
20	Valentia Obsy. †	1017·5	-10	SSE	4	c	47	75	8	5	2	-	7-8	10	2500	1	3
	Roches Point ...	1019·1	+4	S'E	2	bc	41	97	8	-	-	5	0	4-6	-	1	1

PAST 24 HOURS.

District	Stations.	Weather. 7h.—13h. 6th. (37)	Weather. 13h.—18h. 6th. (38)	Weather. 18h. 6th to 1h. 7th (39)	Weather. 1h.—7h. 7th. (40)
1	London (Kew)...	cpr,m$_o$	cm$_o$bm$_o$	bm$_o$xf	offx
	Croydon	cm$_o$mp$_o$f	cmp$_o$,bm	bmbfwx	bfwxoff
	S. Farnborough	d$_o$rm$_o$rc	cz$_o$bm$_o$	bmffx	bffxo
	Boscombe Down	cbcm$_o$	bm$_o$	bm$_o$xbfx	bxfe
	Calshot (Soton.)	cp$_o$m$_o$bc	bcbbcm$_o$	bmf	bfoffx
	Lympne ...	cp$_o$qphbc	bccbc	bm$_o$bbw	bm$_o$wxbf
	Manston ...	prhbcz$_o$	cm$_o$p$_o$b	bbm$_o$w	bm$_o$ffw
2	Shoeburyness ...	bm$_o$cp$_o$	bcb	bm$_o$	bm$_o$FFx
	Felixstowe ...	bm$_o$cpr$_o$	cp$_o$m$_o$b	bbm$_o$	bxmFFx
	Gorleston ...	cqpr$_o$	cbcq	bcm$_o$	bcsfbffx
	Mildenhall ...	cir$_2$bc	cb	bofbf	bffFx
	Cranwell ...	cbcbm$_o$	bm$_o$	bm$_o$f	bfffx
3	Birmingham	b	bbf	bfm	mbfx
	Upper Heyford	cprcmbz$_o$	bm$_o$	bm$_o$f	bffof
4	Ross-on-Wye ...	b	bbz$_o$	bmfx	ffx
5	Hartland Point	bc	bc	bc	bcc
	Bristol	bqbcb	bz$_o$	bm$_o$mx	bmfmFx
	Portland Bill ...	bc	bc	b	c
	Plymouth ...	bz$_o$	z	bm$_o$x	bmxbc
	The Lizard ...	bc	bc	bc	bc
	Scilly (St. Mary's)	bcc	cp$_o$c	cbc	bc
	Guernsey ...	c	c	cbc	bcc
6	Pembroke ...	bbc	bc	bbcw	bc
7	Holyhead ...	bcc ⊕	cbc ⊕	bbcw	
	Chester (Sealand)	bm$_o$b	bbm$_o$x	bm$_o$wx	bfmm$_o$x
8	Manchester ...	bmxmfm	bz$_o$m$_o$bm	FF	FFxff
10	Spurn Head ...	bc	bc	bcw	bcmwf
	Catterick ...	bpr$_o$bc	cbcbm$_o$	bm$_o$x	bm$_o$mx
	Tynemouth ...	bc	cp$_o$bc	bcff	bcffbc
11	St. Abbs Head	cbc	b	b	bcb
	Leuchars ...	bbc	bcbbxm$_o$	bbcm$_o$x	bcbm$_o$x
12	Renfrew (Abbots I.)	bbcxff	ffmffx	bxocff	bbcffx
	Eskdalemuir ...	cxbxb	bbx	bx ⊕w	bbcxc
	Point of Ayre ...	cbc	bw	bcb	bbc
13A	Tiree	cbc	cpr$_o$bc	bcprbc	bcc
13B	Stornoway ...	cbcpr$_o$	cbc	bccpr	cpr
15	Dalwhinnie ...	cbc	bcc	•	FFxff
	Aberdeen ...	cbc	cbcbx	bz$_o$bx	bxm$_o$
	Wick	bccbc	bccbc	bc	bc
16	Lerwick... ...	bcc	c	c	c
17	Blacksod Point...	bc	c	c	ic9
18	Malin Head ...	cvc	c	bcc	c
	Aldergrove ...	xFcbc	bccb	bxm$_o$bx	bxbcc
19	Birr Castle ...	cffb	cb	b	cpr
20	Valentia Obsy. †	bxbcxbc	c	cir$_3$cir$_3$	icccrr
	Roches Point ...	bcbcz$_o$	cbcw	cbc	cirrr

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_o$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_o$/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r$_o$, slight rain. rr, continuous rain.
<, less than (for cloud height). ⚡gale.
⊕ Solar halo. ◑ lunar halo. ⌓Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

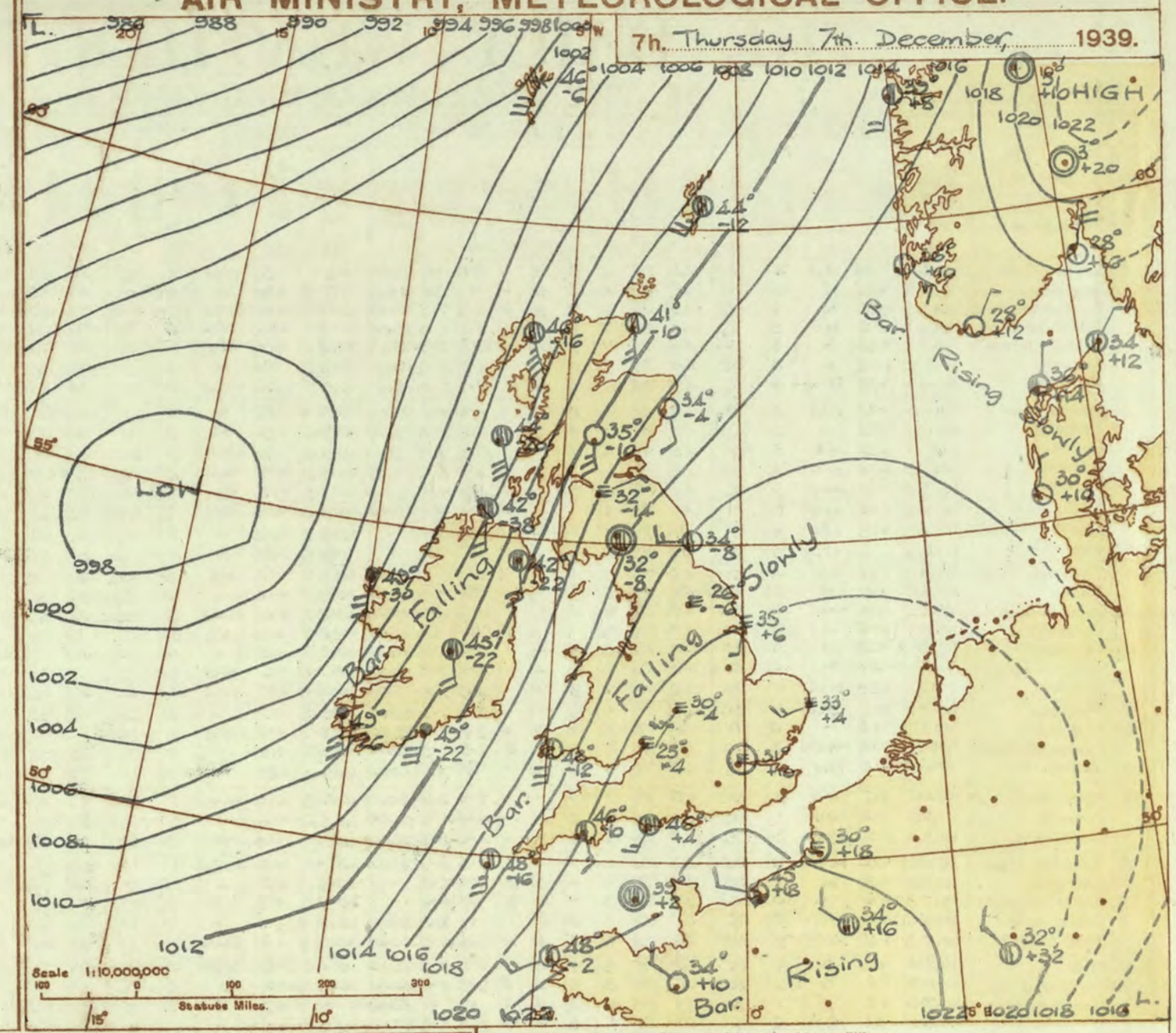
COLUMN 29—STATE OF GROUND.

0 .. Ground dry.
1 .. „ wet.
2 .. „ flooded.
3 .. „ frozen hard and dry.
4 .. „ partly covered with snow or hail.
5 .. „ covered with ice or glazed frost.
6 .. „ covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. „ covered with snow, less than 6 ins., but ground frozen.
9 .. „ covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Thursday 7th. December, 1939.



BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 7th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ...	Wind south to southwest moderate, fair today, rain later, becoming mild.
4 W. Midlands ... 5 S.W. England	Wind south to southwest moderate or fresh; fair most of today, rain later; becoming mild.
6 South Wales ... 7 North Wales ... 8 N.W. England	Wind south to southwest strong to gale; cloudy, occasional rain; mild.
9 N. Midlands ... 10 N.E. England 11 S.E. Scotland	As 4
12 S.W. Scotland & Isle of Man. 13 A. W. Scotld. B.N.W.Scotland. 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands 17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	As 5 - 8.

GENERAL INFERENCE.

A trough of low pressure off our western coasts will move eastwards over the country bringing southwesterly winds and a considerable rise of temperature and occasional rain.

FURTHER OUTLOOK.

Mild southwesterly winds with unsettled weather.

Time of Issue of Gale Warnings.

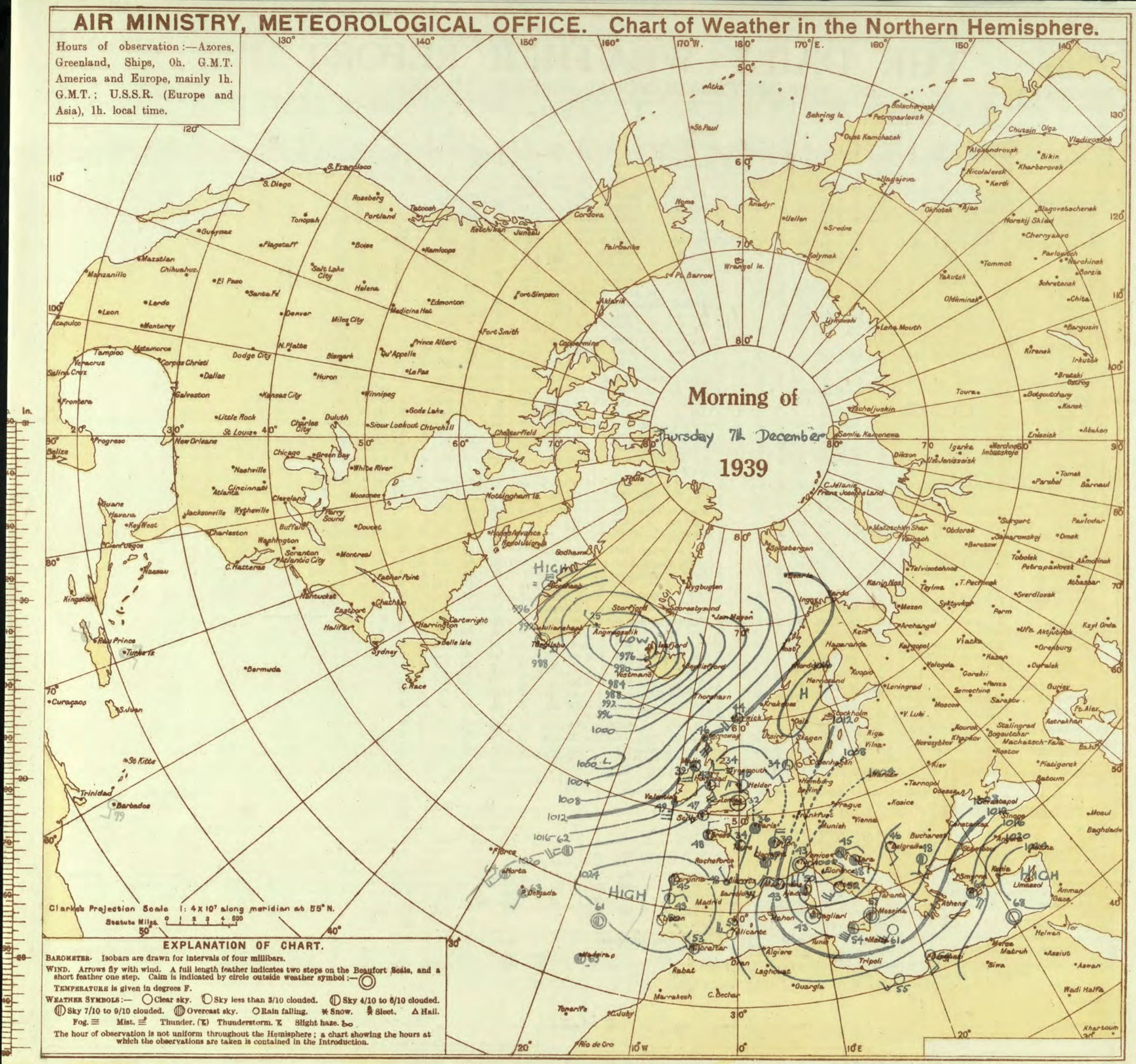
Gale Cone hoisted 0430 7/12/39 in districts 5, 6, 13, 17, 18 and 19.

Forecasts issued at 1030 .

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Thursday 7th December 1939.

No. 28,504.

OBSERVATIONS at 1 hr. G.M.T. 7th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Med. (10)	High (11)	Amount Low 0–10 (12)	Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon	217	1021.0	+10	–	0	bf	32	97	3	–	–	–	0	0	–
	S. Farnborough	226	1021.5	+6	N'S	1	bf+	29	97	3	–	–	–	0	0	–
	Boscombe Down	417	1021.5	+6	–	0	bf+	31	97	2	–	–	–	0	0	–
	Calshot (Sthmtn.)	8	1021.0	+14	NNW	3	bf+	34	97	3	–	–	–	0	0	–
	Lympne	346	1020.1	+10	N'W	3	b	35	92	6	–	–	–	0	0	–
	Manston	154	1019.7	+10	NW	1	z0	37	97	6	–	–	–	0	0	–
2	Shoeburyness	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe	15	1019.3	+10	N'W	1	z0	35	97	5	–	–	–	0	0	–
	Gorleston	5	1019.1	+4	W'N	2	bc	36	85	6	5	–	–	2-3	2-3	2500
	Mildenhall	19	1020.2	+6	WSW	1	bf+	30	97	2	–	–	–	0	0	–
	Cranwell	240	1020.2	+18	W	2	bf	35	97	2	–	–	–	0	0	–
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1021.5	+6	NNW	1	bF+	30	97	1	–	–	–	0	0	–
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1020.3	–2	SE	3	bc	37	85	8	5	–	–	2-3	2-3	4000
	Bristol	209	1021.9	+10	–	0	m	28	97	4	–	–	–	0	0	–
	Portland Bill	32	1020.9	+8	ENE	3	b	36	85	8	–	–	–	0	0	–
	Plymouth	82	1021.5	+2	NNE	1	z0	33	97	6	–	–	–	0	0	–
	The Lizard	240	1020.8	–2	N	3	bc	44	85	8	4	–	–	2-3	2-3	1500
	Scilly (St. Mary's)	163	1019.8	–10	SW'S	3	bc	47	75	8	8	–	–	4-6	4-6	2500
	Guernsey	175	1020.7	+8	–	0	bc	40	85	7	2	–	–	4-6	4-6	2500
6	Pembroke	142	1019.1	–2	SW'S	4	bc	47	75	8	8	–	–	4-6	4-6	2500
7	Holyhead	26	1018.1	–8	S'E	4	bc	43	85	7	2	–	–	2-3	2-3	2500
	Chester (Sealand)	16	1020.3	+4	SE'E	1	bf	30	92	3	–	–	–	0	0	–
8	Manchester	70	1020.6	+6	E	1	F	31	97	0	–	–	–	10	10	<150
10	Spurn Head	29	1018.6	+6	NNW	3	bc	40	92	6	5	–	–	2-3	2-3	5700
	Catterick	175	1019.6	–2	–	0	z0	27	97	6	–	–	–	0	0	–
	Tynemouth	108	1018.5	–4	W	2	bcf	34	85	3	5	–	–	2-3	2-3	1500
11	St. Abbs Head	280	1016.6	–6	WSW	4	b	37	85	8	4	–	–	1	1	2500
	Leuchars	36	1016.8	0	NW	1	z0	32	92	5	5	–	–	2-3	2-3	4000
12	Renfrew (Abbots I.)	19	1017.2	–4	–	0	bcf+	31	97	2	5	–	–	2-3	2-3	2500
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1017.9	–2	SW	3	b	35	97	8	4	–	–	1	1	2500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway	80	1011.8	–10	SSE	6	pr	46	85	7	5	7	–	7-8	7-8	2500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick	81	1013.6	–6	SW	3	bc	41	85	8	5	–	–	2-3	2-3	2500
16	Lerwick	156	1012.8	–2	SSW	4	c	44	75	8	5	7	–	7-8	9	1500
17	Blacksod Point	18	1003.9	–20	S	5	c	49	85	7	9	–	–	9	9	1500
18	Malin Head	84	1013.5	–16	S	4	c/pr	39	85	8	8	–	–	7-8	7-8	5700
	Aldergrove	268	1016.8	–4	S'W	2	[illegible]	34	97	7	5	–	–	Tr	Tr	2500
19	Birr Castle	173	1016.4	–8	S'E	1	b	37	92	8	–	–	–	0	0	–
20	Valentia Obsy.	30	1013.3	–22	S	5	ir	49	85	7	6	2	–	4-6	10	2500
	Roches Point	22	1016.7	–16	S	4	bc	47	85	8	5	–	–	4-6	4-6	1500

OBSERVATIONS at 7 hr. G.M.T. 7th December — PAST 24 HOURS.

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Med. (24)	High (25)	Amount Low 0–10 (26)	Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Temperature Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Night 18h–7h mm. (35)	Sunshine 6th Hrs. (36)
London (Kew)	1022.4	+8	–	0	F	34	92	1	–	–	–	10	10	<150	1	*	46	30	21	0.4	Tr	1.6
Croydon	1022.4	+10	–	0	F–	31	97	1	–	–	–	10	10	<150	1	*	45	30	25	0.1	Tr	0.0
S. Farnborough	1022.4	+2	–	0	F	27	97	0	–	–	–	10	10	<150	3	*	46	24	21	0.5	Tr	1.7
Boscombe Down	1022.1	–4	–	0	bF+	26	97	0	–	–	–	0	0	–	3	*	44	22	19	–	–	5.2
Calshot (Sthmtn.)	1021.9	+2	–	0	OF–	33	97	1	5	–	–	10	10	<150	1	0	46	29	25	Tr	–	0.4
Lympne	1022.2	+10	N'W	2	bF+	27	97	1	–	–	1	0	Tr	–	1	§2	45	27	25	0.2	0.1	4.2
Manston	1022.0	+8	NW	2	F+	35	97	1	–	–	–	10	10	<150	1	*	47	34	29	0.5	Tr	3.2
Shoeburyness	1021.9	+8	–	0	F	32	97	1	–	–	–	10	10	<150	1	*	47	30	23	Tr	–	3.0
Felixstowe	1021.3	+10	WNW	2	F	32	97	1	–	–	–	10	10	<150	1	2	46	31	30	Tr	–	3.1
Gorleston	1020.6	+4	WSW	3	bF	33	92	1	–	–	–	0	0	–	3	2	46	32	30	0.4	–	*
Mildenhall	1021.1	0	S'W	1	bF–	31	97	1	–	–	–	0	0	–	1	*	46	29	23	2	–	2.5
Cranwell	1020.8	+2	SW	1	bf–	29	97	3	–	–	–	0	0	–	1	*	45	*	*	–	–	0.2
Birmingham	1020.3	–4	S	2	f	30	97	2	–	–	–	10	10	<150	1	*	42	29	17	*	–	3.8
Upper Heyford	1022.2	+2	–	0	F+	25	97	0	–	–	–	10	10	<150	3	*	44	24	*	–	Tr	*
Ross-on-Wye	1020.7	–4	NNE	1	f	25	97	2	–	–	–	10	10	<150	3	*	44	22	15	*	–	6.6
Hartland Point	1018.2	–12	S	3	c	40	85	8	5	2	–	4-6	7-8	2500	1	2	47	36	38	–	–	6.6
Bristol	1021.3	–8	–	0	m	27	97	4	–	4	–	0	Tr	–	1	*	45	21	14	–	–	5.6
Portland Bill	1021.9	+4	SW	3	c	46	92	8	5	4	–	4-6	9	4000	1	3	45	36	*	–	–	*
Plymouth	1020.1	–10	SSE	3	bc	46	75	7	5	5	–	2-3	4-6	4000	1	2	47	33	28	–	–	7.2
The Lizard	1019.4	–14	S'E	5	bc	47	75	8	8	6	–	4-6	4-6	2500	1	3	50	39	*	–	–	7.0
Scilly (St. Mary's)	1017.3	–16	S'W	5	bc	48	75	8	8	–	–	4-6	4-6	1500	1	3	51	43		Tr	–	2.8
Guernsey	1021.5	+2	–	0	c	39	65	7	8	–	–	9	9	2500	1	3	47	38	29	–	–	0.3
Pembroke	1016.7	–12	SSW	6	bc	48	85	8	8	6	–	2-3	4-6	2500	1	2	49	40	*	–	–	6.2
Holyhead																				–		
Chester (Sealand)	1019.1	–10	SE'E	2	z0	31	85	5	–	–	4	0	2-3	–	3	*	(46)	29	25	–	–	6.1
Manchester	1019.4	–8	SE	1	bf–	29	97	3	–	–	1	0	Tr	–	3	*	44	24	18	–	–	4.2
Spurn Head	1020.0	+6	SSW	1	bf	35	97	3	–	–	–	0	0	–	1	0	46	35	*	–	0.1	4.9
Catterick	1018.6	–6	–	0	m	26	97	4	–	–	–	0	0	–	3	*	44	25	20	0.2	Tr	3.6
Tynemouth	1018.4	–8	W	3	bc	34	92	6	2	–	–	2-3	2-3	2500	1	2	45	32	29	0.2	–	*
St. Abbs Head	1015.1	–16	SW	5	bc	36	92	8	4	–	–	2-3	2-3	2500	0	3	44	34	*	–	–	*
Leuchars	1014.7	–10	–	0	z0	31	97	5	–	–	1	0	1	–	3	*	44	29	20	–	–	4.4
Renfrew (Abbots I.)	1014.5	–14	E'N	1	cf+	32	97	2	–	4	6	0	7-8	–	3	*	38	29	24	–	–	0.0
Eskdalemuir	1016.3	–8	–	0	c	32	97	6	5	–	–	10	10	450	5	2	41	17	*	–	–	5.2
Point of Ayre	1014.9	–12	SSW	5	b	44	85	8	4	4	5	1	2-3	2500	0	2	48	*		–	–	6.0
Tiree	1007.5	–20	SSE	6	c	44	92	7	5	–	–	7-8	7-8	1500	0	5	49	38	32	0.2	0.4	2.2
Stornoway	1007.7	–16	SSE	7	c/pr	46	85	7	5	2	–	4-6	-10	2500	1	4	45	44	*	–	1	4.2
Dalwhinnie	*	–10	S	5	c	35	85	6	6	7	–	4-6	9+	1500	8	*	38	29	22	–	–	4.3
Aberdeen	1014.2	–4	SSE	2	b	34	92	5	5	–	–	Tr	Tr	4000	3	1	41	29	20	–	–	2.0
Wick	1011.3	–10	S	3	bc	41	85	8	5	4	–	2-3	2-3	2500	1	2	40	35	*	–	–	*
Lerwick	1011.3	–12	SW	5	c	44	75	8	8	7	–	7-8	9	1500	1	*	41	39	*	–	–	0.7
Blacksod Point	1003.4	–30	S	6	ir	49	97	6	6	–	–	10	10	<150	1	4	50	46	*	–	1	*
Malin Head	1007.9	–38	S	4	c/pr	42	75	7	8	–	–	7-8	7-8	5700	0	3	47	36	*	Tr	Tr	1.6
Aldergrove	1012.3	–22	S'E	4	c	42	85	7	5	1	–	9	10	4000	1	*	45	32	27	–	–	3.8
Birr Castle	1009.9	–22	SSE	4	c/pr	45	92	8	8	–	–	9	9	1500	1	*	47	35	33	–	1	3.5
Valentia Obsy.	1007.9	–26	SSE	6	rr	49	97	6	6	2	–	9	10	1500	1	5	47	45	43	*	13	1.9
Roches Point	1011.7	–22	SSW	6	rr	49	97	6	6	2	–	7-8	10	800	1	4	47	40	*	Tr	1	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning	Afternoon	Night	Temperature Day Max. °F.	Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	9h. G.M.T. % (To-day)	Visibility 9h.
		24 hrs. ended 9h.											
Kew	18	cpem0	cm0bm0	mxfFx	46	30	21	0.4	Tr	1.6	•	•	1
Croydon	217	cm0mpef	pr0, bm	bfwxFF	45	30	25	0.1	Tr	0.0	•	•	
Greenwich (Royal Observatory)	149	crcr	crcbm	bx-Fe	45	29	24	0.3	Tr	0.2	75	99	0
City (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park)	27	•	•	•	45	31	30	0.6			80	98	•
Regents Pk. (Botanic Gardens)‡	168	•	•	•	45	31	20	–	–		84	100	•
Camden Square	110	c	b	•	45	32	21	–	Tr	•	•	98	•
Kensington	80	bc	fx	•	46	31	23	0.1	0.1		31	96	•
Hampstead Observatory	450	or	bc	ofx	43	30	28	0.4	–		•	98	•

Atmospheric Pollution.
Milligrams of Solid Impurity per cubic metre.
24 hrs. ended 7h. G.M.T. 7th

	Max.	Time.	Min.	Time.
South Kensington				
Kew Observatory	0.6	22h 6th	<0.1	7h 6th

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 6th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 7th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1013.1	NNW	3	z0	39	1023.1	WNW	2	o	34	43	34	–	–
Brussels														
Berlin														
Zürich														
Rome	1001.0	W	6	c	55	1002.9	WSW	4	c	54	•	•	–	–

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22—Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 „
2 Fog	550 „
3 Moderate fog	1,100 „
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ „
6 Moderate „	6¼ „
7 Good „	12½ „
8 Very good „	31 „
9 Excellent „	beyond 31m.

COLUMN 30—Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

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AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Friday, 8th. December, 1939.

No. 28505

OBSERVATIONS at 13h. G.M.T. 7th. December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Amount Low 0–10 (12)	Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1020·8	-20	SE'S	1	F+	35	97	1	-	-	-	10	10	<150
	Croydon	1021·5	-14	S'E	1	zo	42	85	5	5	4	-	7-8	7-8	2500
	S. Farnborough	1020·7	-22	SSE	2	cF	35	85	3	-	3	-	0	7-8	-
	Boscombe Down	1019·5	-26	SE'S	3	zo	38	92	5	-	3	5	0	7-8	-
	Calshot (Soton.)	1020·1	-18	SSE	3	m	45	85	4	5	7	8	4-6	9+	4000
	Lympne	1021·9	-10	SW'S	1	bc	45	65	7	5	-	5	2-3	4-6	4000
	Manston	1022·0	-6	NW	1	bc/f	48	92	6	-	-	6	0	4-6	-
2	Shoeburyness	1021·9	-8	-	0	F-	37	85	1	-	-	-	10	10	<150
	Felixstowe	1021·0	-10	WSW	2	F	35	97	1	-	-	-	10	10	<150
	Gorleston	1020·0	-8	SSW	1	F	34	97	1	-	-	-	10	10	<150
	Mildenhall	1020·7	-12	-	0	F	32	97	1	-	-	-	10	10	<150
	Cranwell	1018·7	-18	S	3	bcf+	34	97	3	-	-	4	0	4-6	-
3	Birmingham	1017·8	-14	S	3	c	35	85	3	-	7	6	0	9+	-
	Upper Heyford	1020·0	-22	SSE	1	m	35	85	4	-	7	6	0	7-8	-
4	Ross-on-Wye	1017·7	-20	SSW	2	m/f	39	85	4	-	2	-	0	10	-
5	Hartland Point	1014·9	-24	SW	4	roro	46	92	7	5	1	-	7-8	9+	1500
	Bristol	1018·4	-24	S	2	zo	44	75	6	-	3	9	0	9	-
	Portland Bill	1018·7	-14	SW	4	c	49	92	8	5	2	-	7-8	10	4000
	Plymouth	1017·3	-22	S	4	rororo	49	92	6	6	2	-	7-8	10	1500
	The Lizard	1015·6	-30	S	7	rororo	48	97	7	5	-	-	10	10	1500
	Scilly (St. Mary's)	1012·8	-28	S'W	6	roro	49	97	5	5	2	-	7-8	10	1500
	Guernsey	1020·3	-12	S'W	1	c	48	75	7	2	7	-	2-3	9	2500
6	Pembroke	1013·1	-18	SSW	7	rr	49	92	6	8	-	-	10	10	1500
7	Holyhead	1011·6	-26	SSE	6	roro	46	92	7	6	2	-	4-6	10	1500
	Chester (Sealand)	1015·8	-22	ESE	3	zo	35	85	5	-	7	-	0	10	-
	Manchester	1016·9	-22	SSE	1	m	36	85	4	-	7	6	0	10	-
10	Spurn Head	1018·6	-8	S'W	3	m	41	85	4	-	-	8	0	7-8	-
	Catterick	1016·7	-18	S	3	F-	29	97	1	-	-	-	10	10	<150
	Tynemouth	1015·7	-16	SW	3	m	35	75	4	5	3	-	2-3	4-6	2500
11	St. Abbs Head	1012·8	-16	SW	5	c	37	92	7	4	6	-	4-6	9+	2500
	Leuchars	1011·4	-22	SSE	2	c	40	85	7	5	7	-	4-6	10	2500
12	Renfrew (Abbots I.)	1010·6	-22	SE'S	4	dodo	42	92	5	6	2	-	4-6	10	1500
	Eskdalemuir	1013·0	-18	SSE	1	c	35	85	6	5	-	-	10	10	800
	Point of Ayre	1011·2	-22	SSW	6	ido	47	92	8	8	1	-	7-8	10	1500
13A	Tiree	1002·1	-30	SSE	7	dd	46	97	6	6	2	-	9	10	800
13B	Stornoway	1003·2	-26	SSE	8	roro	47	85	7	5	2	-	9	10	2500
15	Dalwhinnie	1008·7	-36	S	4	c	37	92	6	8	7	-	4-6	10	2500
	Aberdeen	1011·5	-20	SSW	3	c	42	85	6	5	2	-	7-8	10	1500
	Wick	1007·4	-18	S	5	c	44	75	8	5	2	8	4-6	9+	2500
16	Lerwick	1008·0	-20	S'E	7	c	45	75	8	8	3	-	4-6	7-8	1500
17	Blacksod Point	1002·1	-4	SW	5	c	52	97	7	6	-	-	9+	9+	<150
18	Malin Head	1001·8	-22	S	5	pr	48	85	7	8	-	-	9	9	1500
	Aldergrove	1007·0	-30	SSE	5	c/d	47	85	7	6	2	-	9	10	800
19	Birr Castle	1006·6	-18	S	3	c/r	50	85	7	6	2	-	7-8	10	1500
	Valentia Obsy. †	1006·9	-2	SW	4	c	54	97	5	5	7	-	9	9+	<150
	Roches Point	1007·6	-26	S	4	df	51	97	3	5	-	-	10	10	<150

OBSERVATIONS at 18h. G.M.T. 7th. December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Amount Low 0–10 (26)	Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.–13h. 7th (37)	13h.–18h. 7th (38)	18h. 7th to 1h. 8th (39)	1h.–7h. 8th (40)
London (Kew)	1018·9	-6	SSE	2	m	41	85	4	5	-	-	4-6	4-6	2500	1	*	oFFxoFe	oFecFbc	cirocroc	crocrcm
Croydon	1019·6	-2	SSE	1	m	40	92	4	5	-	-	7-8	7-8	2500	1	*	oFebFbm	cmobcm	bcmcrod	ddddro
S. Farnborough	1019·0	-4	SE	3	bcf+	38	92	2	5	3	-	4-6	4-6	4000	1	*	oFxbcf	cfmfbc	firodc	rodd
Boscombe Down	1017·3	-10	S	4	iro	43	85	6	5	2	-	4-6	9	2500	1	*	FFbcm	cmoiro	oddmdd	oddmprr
Calshot (Soton.)	1018·3	-8	S'W	4	roro	48	85	6	6	2	-	10	10	1500	1	2	FFx	cmororo	rorodddd	ddrororr
Lympne	1020·9	-8	SSW	2	zo	43	75	6	5	-	-	9	9	4000	1	§ 2	bFfxb	bccczo	czoido	odrofd
Manston	1021·1	0	S	1	zo	39	85	6	5	-	-	4-6	4-6	2500	1	*	FfFbcm	bamo	bcmoido	omdodo
Shoeburyness	1020·4	-2	SE	2	c	42	85	6	7	-	-	9+	9+	4000	1	*	FFe	cmc	c	ciro
Felixstowe																	oFF		bcmocm	cidodd
Gorleston	1020·5	0	S'W	2	bc/f	32	97	6	5	-	-	4-6	4-6	1500	1	1	offe	offebc	bcc	cododq
Mildenhall																*	bFx		omomo	oiddomo
Cranwell	1017·0	-10	S	3	F	33	97	0	-	-	-	10	10	<150	0	*	bfxbcmf	bcfoFF		
Birmingham	1015·0	-14	S	3	c	40	85	5	-	2	-	0	10	-	1	*	fbcc	c	cor	oir
Upper Heyford	1017·4	-12	SSE	2	m	37	92	4	-	7	-	0	10	-	1	*	oFFefm	cbccm	cdmero	crorodomo
Ross-on-Wye	1014·2	-16	S	3	zo	44	85	5	5	1	-	2-3	10	1500	1	*	fFcf	amo	cidor	orr
Hartland Point	1011·0	-6	S	4	c	49	92	8	5	2	-	7-8	10	1500	1	4	cpirro	roroc	croro	oRR
Bristol	1015·5	-12	SSW	5	iro	46	85	6	5	2	-	7-8	10	2500	1	*	cmo	cmoiroq	croqrr	cr̥orRq
Portland Bill	1016·7	-6	SW	5	o	50	92	7	5	-	-	10	10	2500	1	4	c	opr	orr	orr
Plymouth	1013·9	-18	S	6	rr	49	97	5	-	2	-	10	10	450	1	4	bccrorom	crororrm	crodoiro	ororormo
The Lizard	1013·0	+4	S	5	df	51	97	3	5	-	-	10	10	800	1	3	cprrr	rdmdf	cdfrr	frrdf
Scilly (St. Mary's)	1011·5	+2	SW	4	dd	53	97	4	5	-	-	10	10	800	1	4	croro	croodd	orrDd	oddm
Guernsey	1018·5	-18	S'W	3	rr	47	92	6	5	-	-	10	10	1500	1	3	c	croro	orro	oirro
Pembroke	1009·8	-20	SSW	6	id	51	97	5	5	-	-	10	10	800	1	3	bccrrqp	orrddmoq	ferf	rrmororoq
Holyhead	1008·9	-10	S'E	6	iro	49	85	7	6	2	-	7-8	10	1500	1	4	roromoc	roiroc	oddmom	mrrmo
Chester (Sealand)	1012·4	-14	SE'E	4	zo	39	85	5	5	-	-	4-6	4-6	2500	1	*	bccmox	cirobcmo	crorooirom	cmirRR
Manchester	1013·6	-18	SE	2	m	40	85	4	5	-	-	10	10	4000	1	*	xbffcm	cm	cmorr	cmororr
Spurn Head	1016·4	-6	S'E	5	bc	37	97	5	-	4	8	0	4-6	-	1	3	bccmw	cmo	emo	odo
Catterick	1013·5	-14	S'E	3	f-	33	97	2	-	-	-	10	10	<150	3		mxoFx	oFx	ofirom	iromof
Tynemouth	1012·6	-20	SW	3	cf	36	92	3	5	-	-	9+	9+	2500	1	1	bcm	bccFf	cffpoiro	oircm
St. Abbs Head	1009·1	-20	SSE	4	c	39	92	7	8	6	-	4-6	7-8	2500	0	3	bcc	c	ocmo	mbc
Leuchars	1008·2	-18	SE	2	c/r	42	75	6	5	2	-	9	10	1500	1	*	ffmmc	ciromo	rorocmo	
Renfrew (Abbots I.)	1006·6	-22	SSE	2	dd	44	92	4	-	2	-	10	10	1500	1.	*	bcffcroro	cmidirodd	cmdroom	bcomff
Eskdalemuir	1010·0	-10	S'E	3	rr	36	92	4	-	2	-	10	10	220	1	*	cmo	codorr	crddm	odom
Point of Ayre	1008·0	-10	SSW	5	dd	48	97	6	6	2	-	4-6	10	800	1	3	cido	dd	cbc	bcfz
Tiree	999·9	0	S	5	c/d	49	97	6	5	-	-	9	9	1500	1	5	ororr	odrrdq	c	c
Stornoway	998·7	-26	SSE	7	rr	49	92	5	5	2	-	9	10	1500	1	4	croro	crrm	cbcrr	bcc
Dalwhinnie	1005·0	-20	S	6	ir	40	92	6	6	1	-	4-6	10	1500	4	*	cir	cir	*	cir
Aberdeen	1008·2	-18	S	5	ido	43	85	6	6	-	-	10	10	800	1	2	bxbcc	coido	odozo	obcmo
Wick	1002·7	-30	SSE	8	cq	44	85	6	5	2	-	7-8	10	1500	1	3	bcc	cqmo	prbcq	cqbcc
Lerwick	1005·2	-12	S'W	8	c	46	85	7	8	7	-	7-8	10	1500	1	*	c	c	err	ocrroro
Blacksod Point	1003·8	+14	WSW	3	bc	51	85	7	5	-	-	4-6	4-6	800	1	3	DRcq	cbc	bc	c
Malin Head	1002·6	+14	S	4	bc	49	85	7	8	-	-	4-6	4-6	2500	1	3	cprocproc	c	c	c
Aldergrove	1005·5	+4	S'W	3	dodo	48	97	5	6	2	-	9+	10	450	1	*	roririd	cdodomo	cddbc	offFF
Birr Castle	1007·1	+6	S	1	c/pr	50	97	8	8	-	-	7-8	7-8	1500	1	*	cir	cpro	b	c
Valentia Obsy. †	1007·5	+2	S	3	bc	50	92	8	5	2	-	2-3	4-6	1500	1	3	rrrocm	cbc	cbccido	iddroro
Roches Point	1007·9	+8	S	3	c	51	97	8	5	-	5	4-6	7-8	1500	1	4	ddds	idc	ffedfdr	drdrid

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/so, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
so/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). ⸙ gale.
⊕ Solar halo. Ⓘ lunar halo. ⌂ Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

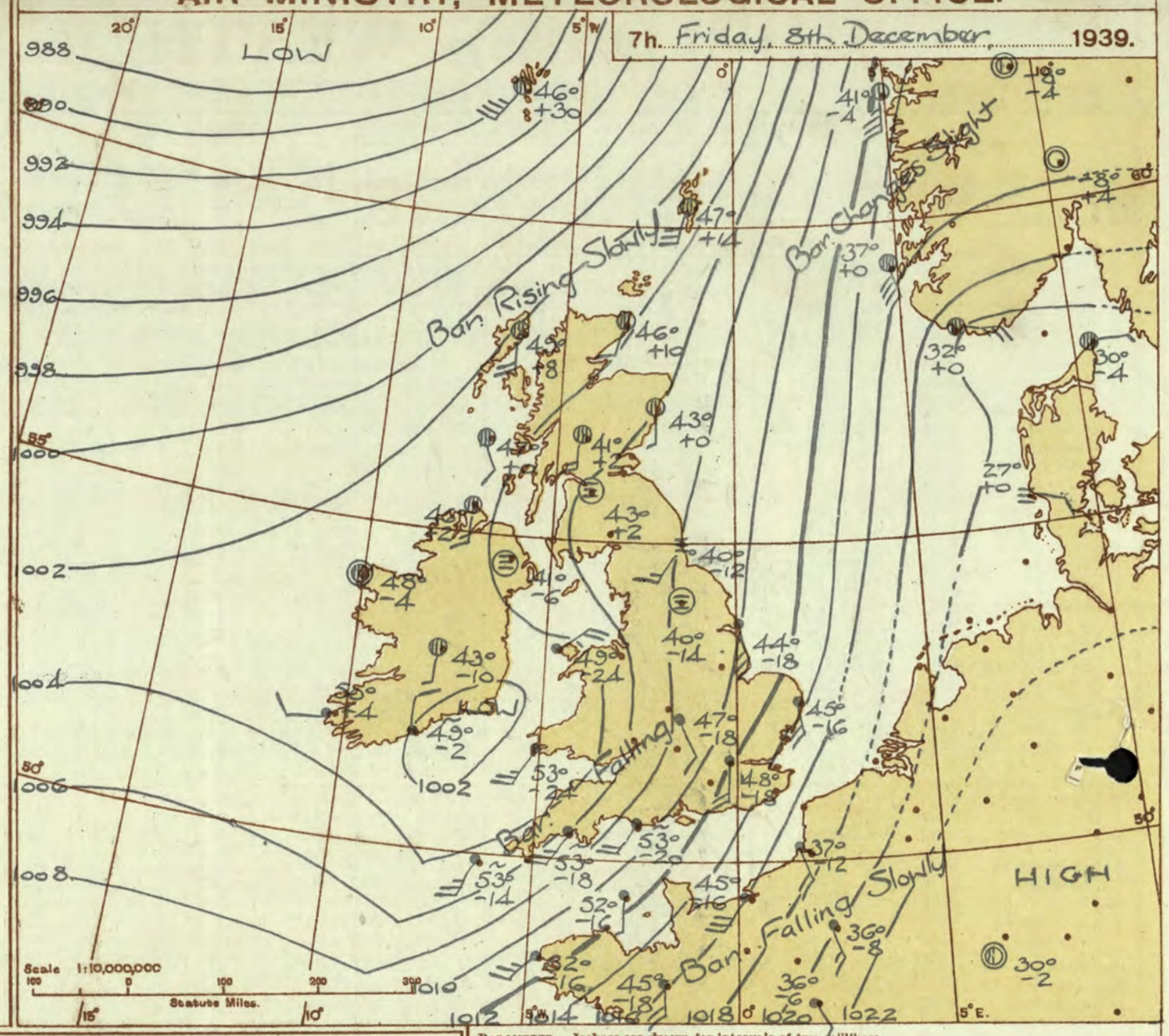
Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.



BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 8th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Fresh to strong southwesterly winds perhaps gale locally on coast, moderating tomorrow; cloudy with continuous rain or drizzle today and some improvement tomorrow; mild.
5 S.W. England 6 South Wales ...	Fresh to strong southwesterly winds perhaps reaching gale locally today, moderating tomorrow; cloudy with continuous rain early, followed by a temporary improvement; mild.
7 North Wales ... 8 N.W. England 9 N. Midlands ...	Variable winds becoming light to moderate southwesterly; cloudy with continuous rain at first, temporary improvement later; mild.
10 N.E. England 11 S.E. Scotland	Variable winds becoming light southwesterly; cloudy, continuous rain spreading from West, otherwise cloudy; mild.
12 S.W. Scotland & Isle of Man.	As 7 - 9.
13 A. W. Scotld. B.N.W.Scotland. 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Light to moderate southwesterly winds; mainly cloudy, with local rain or showers ; mild.
17 N. W. Ireland 18 N. E. Ireland	Light to moderate west to southwest winds; mainly cloudy with perhaps further rain tomorrow; local fog inland; mild.
19 S. E. Ireland 20 S. W. Ireland	Moderate westerly winds backing, local rain becoming mainly fair; perhaps further rain tomorrow; local inland fog; mild.

GENERAL INFERENCE.

A small depression centred between Cork and Pembroke will move northeast to the Northern North Sea by this evening. Another depression is indicated north of the Azores . There will be continuous rain or drizzle over Southeast Scotland and most of England today but a temporary improvement will spread east later. Fresh to strong southwesterly winds in the Channel and over Eastern England may reach gale force locally today.

FURTHER OUTLOOK.

Continuing unsettled and mild.

Time of Issue of Gale Warnings.

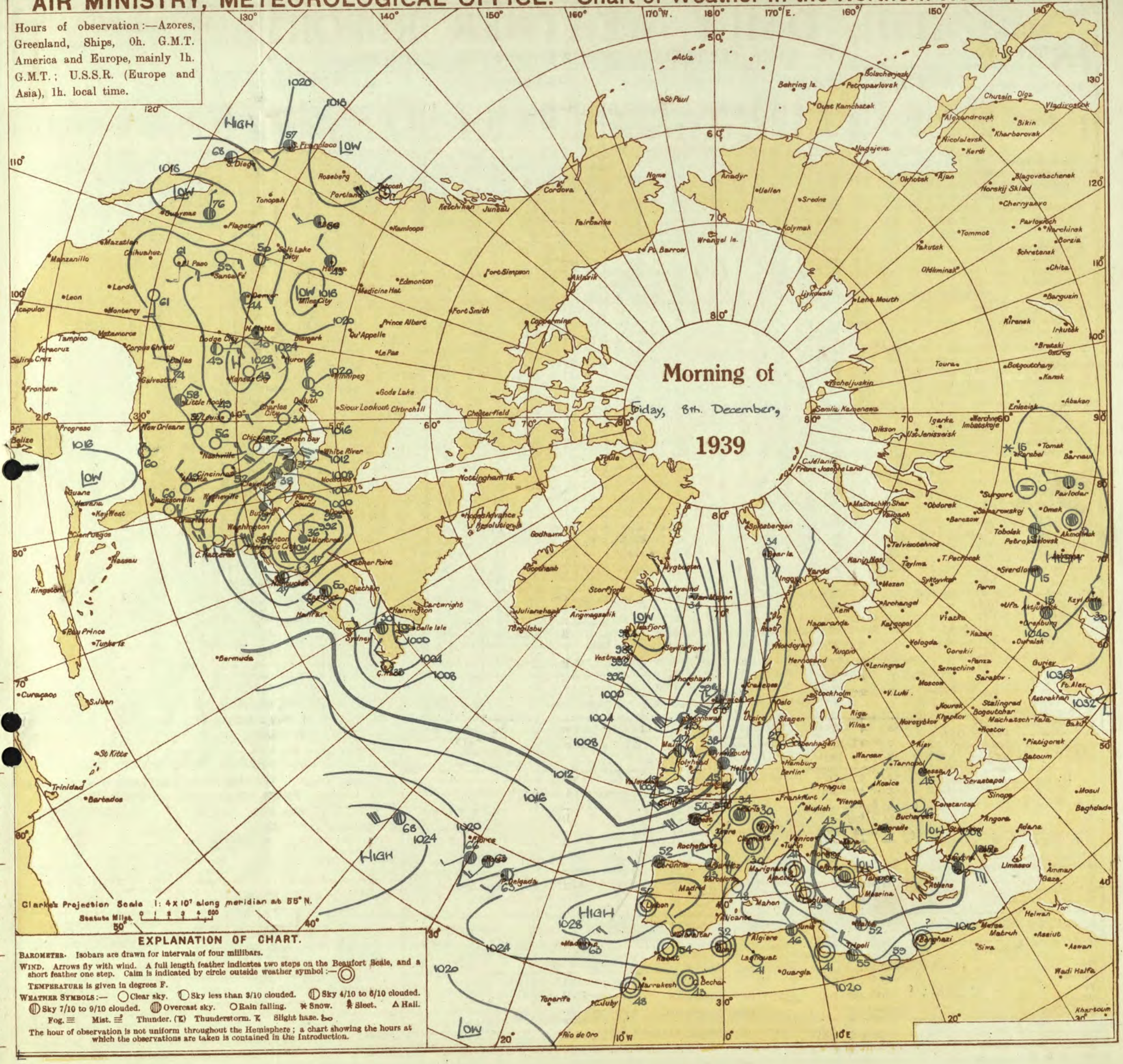
Cone hoisted 1540 on 7/12/39 in districts 16.
Cone hoisted 0620 on 8/12/39 in districts 1, 2, 5, 10, 11, 15 .

Forecasts issued at 1030

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Friday, 8th December, 1939.

No. 28505

OBSERVATIONS at 1 hr. G.M.T. 8th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon	217	1015·8	-26	S	4	dd	45	97	5	6	2	-	9	10	800
	S. Farnborough	226	1014·7	-22	S	4	dd	45	97	5	6	-	-	10	10	800
	Boscombe Down	417	1013·1	-20	S'E	5	dd	48	97	5	-	2	-	10	10	450
	Calshot (Sthmtn.)	8	1014·4	-18	S	4	dd	48	97	5	6	2	-	7-8	10	800
	Lympne	346	1018·3	-14	S'W	4	id	43	92	6	5	-	-	10	10	800
	Manston	154	1018·3	-10	S'W	3	id	43	97	6	6	-	-	10	10	800
2	Shoeburyness	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe	15	1017·5	-10	S'W	4	id	45	85	5	6	2	-	9+	10	1500
	Gorleston	5	1017·1	-10	S	4	c	44	85	7	5	-	-	10	10	2500
	Mildenhall	19	1013·3	-18	S'E	4	z	43	92	6	5	-	-	10	10	4000
	Cranwell	240	1013·4	-14	S'E	3	of	41	97	2	5	-	-	10	10	800
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1013·6	-20	S	4	rr	44	97	5	-	2	-	10	10	450
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1009·0	-8	SW	5	rr	52	97	6	-	2	-	10	10	1500
	Bristol	209	1011·6	-14	S	3	ir	50	97	6	5	2	-	9	10	800
	Portland Bill	32	1012·5	-12	SW	5	rr	53	92	7	5	-	-	10	10	1500
	Plymouth	82	1011·7	-2	SW'S	4	ir	53	97	6	-	2	-	10	10	800
	The Lizard	240	1011·1	-16	SW	6	rr	53	97	6	5	-	-	10	10	800
	Scilly (St. Mary's)	163	1009·7	-12	SW'S	5	dd	53	97	4	5	-	-	10	10	800
	Guernsey	175	1015·0	-6	SSW	2	r/r	51	97	5	5	-	-	10	10	800
6	Pembroke	142	1008·1	-4	SW'S	4	rf	52	97	2	-	-	-	10	10	<150
7	Holyhead	26	1007·5	-2	S'E	4	mr	49	97	4	-	2	-	10	10	450
	Chester (Sealand)	16	1009·5	-10	SE'E	4	z	46	92	5	5	2	-	7-8	9+	2500
8	Manchester	70	1010·5	-14	SE'S	2	rr	44	97	5	-	2	-	10	10	1500
10	Spurn Head	29	1012·1	-16	S'E	5	o	42	92	6	-	2	-	0	10	-
	Catterick	175	1010·4	-12	S'E	3	m/d	36	97	4	5	-	-	10	10	220
	Tynemouth	108	1010·4	-10	SW	4	ir	38	92	5	-	2	-	10	10	1500
11	St. Abbs Head	280	1007·9	+4	S	3	bc	41	97	6	8	1	-	2-3	4-6	2500
	Leuchars	36	1006·0	0	SSW	3	z	45	85	6	5	-	-	9+	9+	2500
12	Renfrew (Abbots I.)	19	1006·2	+2	SW	2	z	47	97	5	5	7	-	4-6	4-6	2500
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1007·3	0	SW'S	2	bc	50	97	7	8	-	-	4-6	4-6	2500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway	80	998·8	+36	SW	6	bc/r	49	85	7	5	-	-	4-6	4-6	2500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick	81	1001·5	-2	S	6	cq	46	85	6	5	1	-	4-6	7-8	1500
16	Lerwick	156	1001·2	-20	S'W	8	rr	46	92	7	6	2	-	7-8	10	800
17	Blacksod Point	18	1004·5	0	S	2	c	49	97	7	5	-	-	10	10	800
18	Malin Head	84	1004·9	+6	S	3	c	47	85	7	8	-	-	7-8	7-8	4000
	Aldergrove	268	1006·4	-2	SSW	2	z	44	97	6	5	-	6	2-3	9	450
19	Birr Castle	173	1006·7	-8	S	1	b	44	97	8	-	-	-	0	0	-
20	Valentia Obsy.	30	1004·8	-18	NE'N	2	id	49	85	7	5	-	-	10	10	2500
	Roches Point	22	1005·5	+24	SSW	3	dr	48	97	6	5	-	-	10	10	450

OBSERVATIONS at 7 hr. G.M.T. 8th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1010·9	-18	SSW	3	z	48	92	6	5	-	-	10	10	1500	1	*
Croydon	1012·0	-18	S	4	rr	48	97	5	6	2	-	9	10	450	1	*
S. Farnborough	1010·8	-18	S	4	dd	50	97	5	6	-	-	10	10	450	1	*
Boscombe Down	1009·2	-20	S	5	rr	51	97	5	-	2	-	10	10	450	1	*
Calshot (Sthmtn.)	1010·7	-18	S'W	5	rr	51	97	5	6	2	-	4-6	10	800	1	3
Lympne	1015·4	-14	S'W	4	dF	44	97	1	-	-	-	10	10	<150	1	4
Manston	1014·7	-14	SSW	4	dd	44	97	6	6	-	-	10	10	450	1	*
Shoeburyness	1013·3	-18	SSW	5	ir	46	92	7	6	2	-	9+	10	1500	1	*
Felixstowe	1013·6	-18	S	4	id	45	97	6	5	-	-	10	10	450	1	3
Gorleston	1013·2	-16	S'E	5	dd	45	92	6	6	-	-	10	10	1500	1	3
Mildenhall	1011·0	-22	S	4	rr	46	92	6	6	2	-	9	10	800	1	*
Cranwell	1009·2	-22	S	3	rr	44	97	4	5	-	-	10	10	800	1	*
Birmingham	1007·1	-18	SSE	2	rr	47	97	5	6	-	-	10	10	800	1	*
Upper Heyford	1009·6	-16	SE	3	rr	48	97	6	-	2	-	10	10	220	1	*
Ross-on-Wye	1006·3	-20	S	3	rr	52	97	6	6	-	-	10	10	1500	1	*
Hartland Point	1003·7	-24	SW	5	rr	53	97	6	-	2	-	10	10	800	1	4
Bristol	1007·3	-28	S	5	iR	53	97	6	6	2	-	9	10	800	2	*
Portland Bill	1009·0	-20	SW	4	rr	53	92	7	5	-	-	10	10	1500	1	4
Plymouth	1007·0	-18	SW	5	rr	53	97	6	-	2	-	10	10	450	1	4
The Lizard	1007·2	-16	SSW	6	df	53	97	3	5	-	-	10	10	800	1	4
Scilly (St. Mary's)	1005·1	-14	SW'S	5	dd	53	97	4	5	-	-	10	10	800	1	4
Guernsey	1011·4	-16	S	1	rr	52	97	6	5	-	-	10	10	1500	1	3
Pembroke	1002·5	-24	SW	5	rr	53	97	5	5	-	-	10	10	800	1	3
Holyhead	1003·0	-24	ENE	4	rr	49	97	6	-	2	-	10	10	1500	1	2
Chester (Sealand)	1005·6	-24	ESE	2	RR	46	97	4	-	2	-	10	10	800	1	*
Manchester	1006·5	-22	E'S	2	RR	46	97	5	-	2	-	10	10	1500	2	*
Spurn Head	1009·1	-18	SSE	5	r	44	97	6	5	-	-	10	10	1500	1	3
Catterick	1007·8	-14	-	0	f+	40	97	2	-	-	-	10	10	<150	1	*
Tynemouth	1008·0	-12	SW	3	m	40	97	4	5	-	-	10	10	1500	1	1
St. Abbs Head	1006·0	-8	SW	4	bc	44	97	6	4	-	-	4-6	4-6	2500	0	2
Leuchars	1005·9	-2	WSW	1	z	44	92	6	5	-	-	9+	9+	2500	1	*
Renfrew (Abbots I.)	1006·4	+2	-	0	cf+	43	97	3	5	-	-	10	10	1500	1	*
Eskdalemuir	1006·4	-6	-	0	m	41	97	4	5	-	-	10	10	<150	1	
Point of Ayre	1005·1	-3	SSE	4	c	48	97	5	-	2	-	10	10	1500	1	2
Tiree	1003·1	0	SSE	2	c	47	92	7	5	-	-	9+	9+	2500	0	2
Stornoway	1002·0	+8	S	4	c	49	85	7	5	7	-	4-6	7-8	2500	1	2
Dalwhinnie	1006·0	+2	S	3	c	41	92	7	4	7	-	2-3	9+	2500	1	*
Aberdeen	1005·8	0	S	1	bc	43	97	6	-	7	-	0	4-6	-	1	1
Wick	1003·2	+10	SSW	2	c	46	92	7	5	7	-	4-6	7-8	1500	1	2
Lerwick	1002·7	+14	SSW	6	c/r	47	92	6	8	2	-	4-6	10	800	1	*
Blacksod Point	1003·3	+4	-	0	c	48	97	7	5	-	-	10	10	800	0	2
Malin Head	1003·6	+2	S	3	c	46	75	7	8	-	-	7-8	7-8	4000	0	3
Aldergrove	1005·2	-6	-	0	F+	41	97	1	-	-	-	10	10	<150	1	*
Birr Castle	1003·3	-10	S	1	c	43	97	7	5	-	-	10	10	2500	1	*
Valentia Obsy.	1003·8	+4	W'S	2	rr	50	97	6	6	2	-	7-8	10	1500	1	2
Roches Point	1002·0	-2	N	2	id	49	97	7	5	-	-	10	10	800	1	4

PAST 24 HOURS.

Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F. (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 7th Hrs. (36)
London (Kew)	41	40	36	Tr	0·3	0·0
Croydon	42	40	36	Tr	1	1·6
S. Farnborough	38	37	37	0·1	1	0·1
Boscombe Down	43	42	40	0·1	5	0·0
Calshot (Sthmtn.)	48	46	45	0·2	3	0·0
Lympne	47	42	37	0·1	1	2·8
Manston	(48)	38	33	Tr	0·4	2·6
Shoeburyness	43	41	37	0·2	0·3	0·0
Felixstowe	40	39	36		0·6	0·0
Gorleston	35	32	32	-	0·2	*
Mildenhall		36	30		Tr	0·4
Cranwell	38	33	31	0·1	0·6	3·5
Birmingham	40	39	37	*	6	1·1
Upper Heyford	38	36	32	0·3	2	*
Ross-on-Wye	44	44	40	-	5	0·1
Hartland Point	49	48	47	1	19	0·0
Bristol	46	46	43	0·1	12	1·0
Portland Bill	51	44	*	Tr	6	*
Plymouth	50	49	49	11	11	0·0
The Lizard	53	52	*	5	8	0·0
Scilly (St. Mary's)	53	52	*	7	12	0·0
Guernsey	49	47	45	1	11	0·0
Pembroke	51	50	*	2	18	0·0
Holyhead	49	49	46	0·3	7	0·0
Chester (Sealand)	39	39	36	0·1	7	0·2
Manchester	40	40	38	Tr	8	[illegible]
Spurn Head	41	37	*	Tr	Tr	0·0
Catterick	33	32	32	-	1	0·0
Tynemouth	37	35	32	-	3	*
St. Abbs Head	39	38	*	-	1	*
Leuchars	42	41	39	0·1	0·3	0·1
Renfrew (Abbots I.)	44	42	34	1	1	0·0
Eskdalemuir	37	36	35	0·3	6	0·0
Point of Ayre	48	43	*	2	0·2	0·0
Tiree	49	45	41	6	-	0·0
Stornoway	49	47	*	1	3	0·0
Dalwhinnie	40	38	34	1	2	0·0
Aberdeen	44	43	37	Tr	Tr	0·0
Wick	45	43	*	-	Tr	*
Lerwick	47	43	*	-	2	*
Blacksod Point	53	47	*	4	-	*
Malin Head	50	43	*	2	-	0·0
Aldergrove	48	40	38	5	0·3	0·0
Birr Castle	51	41	39	2	-	0·0
Valentia Obsy.	55	46	41	6	7	0·0
Roches Point	53	48	*	3	7	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Temperature Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
		24 hrs. ended 9h.											
Kew	18	dFxoFe	dFefbc	dirzgm	41	40	36	Tr	0·3	0·0	*	*	6
Croydon	217	dFebfm	dmbcm	bcezdc	42	40	36	Tr	1	1·6	*	*	
Greenwich (Royal Observatory)	149	FeFe	cfm	cdir	52	42	31	-	0·8	0·2	94	97	6
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	51	34	32	i			78	95	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*	50	33	31	-	2		83	91	*
Camden Square	110	bc	bccor	*	50	41	29	-	2	*		96	*
Kensington	80	cfc	cr	*	50	41	33	-	1		84	96	*
Hampstead Observatory	450	of	bc	ofr	49	37	32	-	2		*	98	*

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 8th.

	Max.	Time.	Min.	Time.
South Kensington				
Kew Observatory	0·7	15h. 7th.	0·1	0-7h. 8th.

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 7th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 8th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1025·0	-	0	m	36	1021·8	SSE	3	r	36	39	34	-	Tr
Brussels														
Berlin														
Zürich														
Rome	1006·3	-	0	o	45	1013·0	N	3	b	*	*	*	-	-

EXPLANATION of FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 —Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 „
2 Fog	550 „
3 Moderate fog	1,100 „
4 Mist or haze	1½ miles.
5 Poor visibility	2½ „
6 Moderate „	6¼ „
7 Good „	12½ „
8 Very good „	31 „
9 Excellent „	beyond 31m.

COLUMN 30 —Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Saturday 9th December 1939.
No. 28506

OBSERVATIONS at 13h. G.M.T. 8th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1005·9	-34	SSW	4	c/r	50	97	6	5	-	-	10	10	1500
	Croydon	1007·4	-34	S'W	4	r_or_o	51	97	6	6	-	-	10	10	800
	S. Farnborough	1005·9	-34	S'W	4	d_od_o	52	97	5	6	-	-	10	10	800
	Boscombe Down	1003·8	-38	S'W	5	dd	53	97	5	6	2	-	9	10	450
	Calshot (Soton.)	1005·7	-34	S'W	6	r_or_o	52	97	5	6	2	-	9	10	800
	Lympne	1010·8	-32	S'W	4	rr	47	97	5	6	2	-	9+	10	<150
	Manston	1010·0	-30	SSW	4	r_or_o	46	97	5	6	-	-	10	10	450
2	Shoeburyness	1008·8	-32	S	4	rr	49	97	6	6	2	-	9+	10	800
	Felixstowe	1009·0	-30	S	5	rr	47	97	5	6	-	-	10	10	450
	Gorleston	1008·4	-34	SSE	6	r_or_o	45	97	6	6	-	-	10	10	1500
	Mildenhall	1005·8	-34	S'E	4	rr	50	97	6	6	2	-	7-8	10	800
	Cranwell	1003·0	-38	S'E	4	dr	49	97	5	6	2	-	9+	10	800
3	Birmingham	1001·8	-26	S	3	rr	52	97	5	6	-	-	10	10	450
	Upper Heyford	1003·8	-34	SSE	4	rr	52	97	6	6	2	-	9+	10	450
4	Ross-on-Wye	1001·5	-26	SSW	3	rr	54	97	7	6	-	-	10	10	800
5	Hartland Point	1003·8	+12	W	4	d	51	97	7	-	2	-	10	10	800
	Bristol	1002·9	-26	S	4	ir	54	97	6	6	2	-	7-8	10	450
	Portland Bill	1005·7	-20	SW	4	rr	54	92	7	5	-	-	10	10	1500
	Plymouth	1005·4	-4	WSW	5	id_o	54	97	6	6	-	-	9+	9+	450
	The Lizard	1007·9	+12	W	6	bc	53	97	5	8	6	-	4-6	4-6	2500
	Scilly (St. Mary's)	1008·1	+30	W'S	6	c	53	92	7	8	-	-	9+	9+	1500
	Guernsey	1008·1	-20	SW'S	3	r_or_o	54	97	5	5	-	-	10	10	800
6	Pembroke	1002·8	+6	NW	4	cjf	51	97	7	5	-	-	10	10	1500
7	Holyhead	999·6	-6	NNE	6	d_od_o	49	97	4	5	-	-	10	10	<150
	Chester (Sealand)	999·7	-28	SSE	2	z_o	54	92	5	5	7	-	2-3	7-8	450
8	Manchester	1000·2	-36	SSE	3	c/r	52	97	5	5	2	-	9	10	800
10	Spurn Head	1003·3	-34	SE'S	5	rr	46	97	4	5	-	-	10	10	450
	Catterick	1002·4	-36	-	0	rf	41	97	2	-	-	-	10	10	<150
	Tynemouth	1003·9	-30	SE	2	rr	44	97	6	-	2	-	10	10	1500
11	St. Abbs Head	1004·6	-14	WNW	2	c	45	97	7	5	2	-	7-8	10	1500
	Leuchars	1004·8	-14	-	0	m	43	97	4	5	-	-	10	10	1500
12	Renfrew (Abbots I.)	1005·5	-10	-	0	rf	42	97	2	5	-	-	10	10	450
	Eskdalemuir	1003·3	+20	N	3	rr	43	97	6	-	2	-	10	10	1500
	Point of Ayre	1002·7	-14	ENE	4	r_or_o	47	97	6	6	2	-	4-6	10	1500
13A	Tiree	1003·3	0	S'E	2	dd	48	97	6	-	2	-	10	10	1500
13B	Stornoway														
15	Dalwhinnie	1005·4	-4	NE	1	c	42	92	8	5	-	-	10	10	4000
	Aberdeen	1005·1	-12	S'W	1	m	45	92	4	5	2	-	9	10	800
	Wick	1004·1	-2	S	2	c	47	92	8	5	1	8	4-6	10	2500
16	Lerwick	1005·0	+4	S'E	5	c	48	97	6	8	2	-	7-8	10	450
17	Blacksod Point	1004·8	+6	S	3	c	50	92	7	8	-	-	10	10	450
18	Malin Head	1004·0	+4	S	1	r_or_o	46	85	8	8	-	-	9	9	5700
	Aldergrove	1003·9	-6	W	1	cft	45	97	2	5	2	-	7-8	10	1500
19	Birr Castle	1005·8	+10	SSW	1	c	45	97	7	5	-	-	10	10	2500
20	Valentia Obsy. †	1008·8	+30	W	3	c	52	92	8	2	6	-	7-8	7-8	800
	Roches Point	1006·5	+24	NW	3	bc	52	85	8	3	-	5	2-3	4-6	1500

OBSERVATIONS at 18h. G.M.T. 8th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1004·5	+8	WSW	4	c/r	52	85	5	5	-	-	10	10	1500	1	*
Croydon	1005·2	+2	W'S	5	c	53	85	6	5	-	-	10	10	1500	1	*
S. Farnborough	1005·2	+16	WSW	5	z_o	51	92	6	5	3	-	7-8	7-8	1500	1	*
Boscombe Down	1006·5	+32	W	5	bc/r	50	92	6	5	-	-	4-6	4-6	1500	1	*
Calshot (Soton.)	1006·6	+20	W'S	4	z_o	53	85	6	5	7	-	4-6	7-8	1500	1	3
Lympne	1006·1	-20	SW'W	5	df	51	97	2	-	-	-	10	10	<150	1	§ 4
Manston	1004·9	-18	SW'S	4	r_or_o	50	97	5	6	2	-	9+	10	220	1	*
Shoeburyness	1004·7	-22	S	4	c	51	97	7	5	-	-	10	10	1500	1	*
Felixstowe	1004·6	-30	SW'S	5	c/r	48	97	5	6	2	-	7-8	9	450	2	3
Gorleston	1003·4	-26	SSE	6	rr	47	92	6	6	-	-	10	10	1500	1	4
Mildenhall	1001·8	-14	SSW	3	rr	52	97	6	6	2	-	7-8	10	1500	1	*
Cranwell	1000·5	-6	SSW	2	r_or_o	51	97	5	6	2	-	7-8	10	1500	1	*
Birmingham	1004·6	+26	WNW	4	c	48	85	6	6	-	-	10	10	800	1	*
Upper Heyford	1003·5	+10	W'S	4	c	50	92	7	8	-	-	9+	9+	1500	1	*
Ross-on-Wye	1006·4	+40	W	3	bc	50	75	7	5	-	-	2-3	2-3	2500	1	*
Hartland Point	1009·7	+28	NW	3	c	51	97	8	8	-	-	9+	9+	1500	1	3
Bristol	1007·2	+32	W'N	4	c	50	92	7	5	-	-	7-8	7-8	1500	2	*
Portland Bill	1009·6	+30	WNW	4	bc	52	92	7	5	-	-	4-6	4-6	1000	1	4
Plymouth	1010·8	+32	NW'W	4	z_o	53	92	6	5	-	-	9+	10	800	1	4
The Lizard	1012·3	+16	W	4	c	51	92	7	5	-	-	10	10	1500	1	2
Scilly (St. Mary's)	1012·3	+30	WNW	4	c	51	92	7	8	3	-	4-6	9+	1500	1	3
Guernsey	1011·6	+30	WNW	3	c	53	92	6	8	1	-	7-8	9+	1500	1	3
Pembroke	1009·4	+36	WNW	4	c	52	92	7	8	-	-	9	9	1500	1	3
Holyhead	1007·1	+44	WNW	4	c	50	92	7	5	-	-	7-8	7-8	2500	1	2
Chester (Sealand)	1005·0	+38	NW'W	5	z_o	47	92	5	5	-	-	2-3	2-3	1500	1	*
Manchester	1003·9	+48	WNW	4	z_o	45	92	6	5	3	-	2-3	4-6	1500	1	*
Spurn Head	999·9	-8	S	3	id_o	47	97	5	5	-	-	10	10	1500	2	1
Catterick	1002·0	+16	NW	3	ir_o	43	92	4	5	-	-	9+	9+	1500	1	4
Tynemouth	1002·2	+6	NW	3	c/r	44	97	5	-	2	-	10	10	1500	1	1
St. Abbs Head	1003·1	0	NW	3	rr	48	97	5	5	-	-	10	10	1500	1	2
Leuchars	1003·8	-2	-	0	cf	42	97	3	5	-	-	10	10	1500	1	*
Renfrew (Abbots I.)	1005·8	+6	WNW	1	rf	43	92	3	5	2	-	7-8	10	450	1	*
Eskdalemuir	1003·9	+10	-	0	ir_o	42	92	6	6	2	-	7-8	10	800	1	*
Point of Ayre	1005·8	+20	NW'N	4	c	48	92	7	8	7	-	4-6	10	1500	1	2
Tiree	1003·9	+2	SW	3	c/r	48	92	6	5	-	-	9+	9+	1500	1	3
Stornoway	1005·2	+12	SW	1	r_or_o	46	97	6	5	2	-	9	10	1500	1	1
Dalwhinnie	1005·0	+4	-	0	RR	39	97	6	6	-	-	10	10	1500	1	*
Aberdeen	1004·3	-2	NW	1	rr	43	97	4	-	2	-	10	10	800	1	1
Wick	1004·4	+6	SSW	2	c	45	92	7	5	7	8	4-6	10	2500	1	2
Lerwick	1005·3	+2	S	5	c	47	92	6	5	2	-	7-8	10	450	1	*
Blacksod Point	1008·4	+12	W	2	c	46	85	8	-	7	9	0	7-8	-	0	1
Malin Head	1005·7	+12	S'W	3	c/pr	47	92	6	9	2	-	Tr	9	2500	1	3
Aldergrove	1006·8	+20	SSW	1	cf+	43	97	1	5	1	-	2-3	10	2500	1	*
Birr Castle	1009·2	+20	WNW	1	b	45	92	8	-	-	-	0	0	-	1	*
Valentia Obsy. †	1011·6	+14	SW'S	2	bc	47	92	8	5	3	-	2-3	4-6	800	1	2
Roches Point	1010·9	+22	WNW	3	bc	48	92	8	5	-	5	1	4-6	2500	1	3

PAST 24 HOURS.

Stations	Weather 7h.—13h. 8th (37)	Weather 13h.—18h. 8th (38)	Weather 18h. 8th to 1h. 9th (39)	Weather 1h.—7h. 9th (40)
London (Kew)	croromocmo	cirrocmo	cbcbmob	bbmox
Croydon	cdodorrmo	croddddomo	cbcbmo	bmo wemo
S. Farnborough	rrddc	dordoc	cbmow	bmow
Boscombe Down	crrddmo	crorocidoiro	bmo	bmo
Calshot (Soton.)	rrororomo	roroRdodo	bcbwmo	bwbcbwmo
Lympne	fdocrorrm	omocfddrr	fdbmo	bmow
Manston	dodorr	roro	rorocbmo	bmo
Shoeburyness	rrRc	croRc	c	bcbmo
Felixstowe	orororr	orrmo	oidobmo	bmocmo
Gorleston	ororoq	orrq	orrobc	bc
Mildenhall	crororr	rrddcmo	bcmobc	bcmo
Cranwell	rrorodo	rorrroro	rorobbcmo	bcbwmo
Birmingham	orrir	orco	obc	bcb
Upper Heyford	crrddrr	rdmcrrc	bbc	bjfmo
Ross-on-Wye	rrir	rcbc	bbcb	bbc
Hartland Point	orrod	odoc	cbc	crcrc
Bristol	irRRq	cirmororo	bbpro b	bbcc
Portland Bill	orr	cbc	cbc	bcc
Plymouth	rrddmido	cidocmo	cmobmo	bmcroro
The Lizard	dfdbc	bcc	bcw	Fidm
Scilly (St. Mary's)	oddbcc	c	cbcw	ofrffp
Guernsey	orror	ororo		bcc
Pembroke	iFdfo	bcc	bc	cir
Holyhead	RRrro	mddc	c,b	bbcc
Chester (Sealand)	RRfrodo	bccidodbmo	bcmo	cmofbcmow
Manchester	RRffrr	cmorofd	cmoircmo	cmo
Spurn Head	orrm	orrmd	cb	bbcw
Catterick	ofrr	frriromo	iromob	bbx
Tynemouth	cmffrr	orrff	obc	bc
St. Abbs Head	c	rrm	mob	bc
Leuchars	cmomw	dcmffdorcf	rfcmo	cmobcb
Renfrew (Abbots I.)	cofforoo	offroroc	croffcmo	
Eskdalemuir	oorr	rriro	ciro bc	bcbx
Point of Ayre	roro	iroc	bcc	bbcc
Tiree	ododo	odrrc	cbc	bcc
Stornoway		cRR		b
Dalwhinnie	c	cpr	*	crrb
Aberdeen	bcmcm	fforr	rrom	obcmo
Wick	c	c	crodo	dodoc
Lerwick	cmo	cmo	cirrr	crfir
Blacksod Point	c	bc	c	rr
Malin Head	cidoc	c	c	c
Aldergrove	Fdfdfido	cmofF	cFbfmo	bmocmo
Birr Castle	rorooo	bcb	bbcc	crr
Valentia Obsy. †	cbcc	cbc		irororrrr
Roches Point	cbc	bc	bbcwcw	rr

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m, mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_o, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_o/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.

q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). ⁄gale.
⊕ Solar halo. Ⓘ lunar halo. ⌂Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

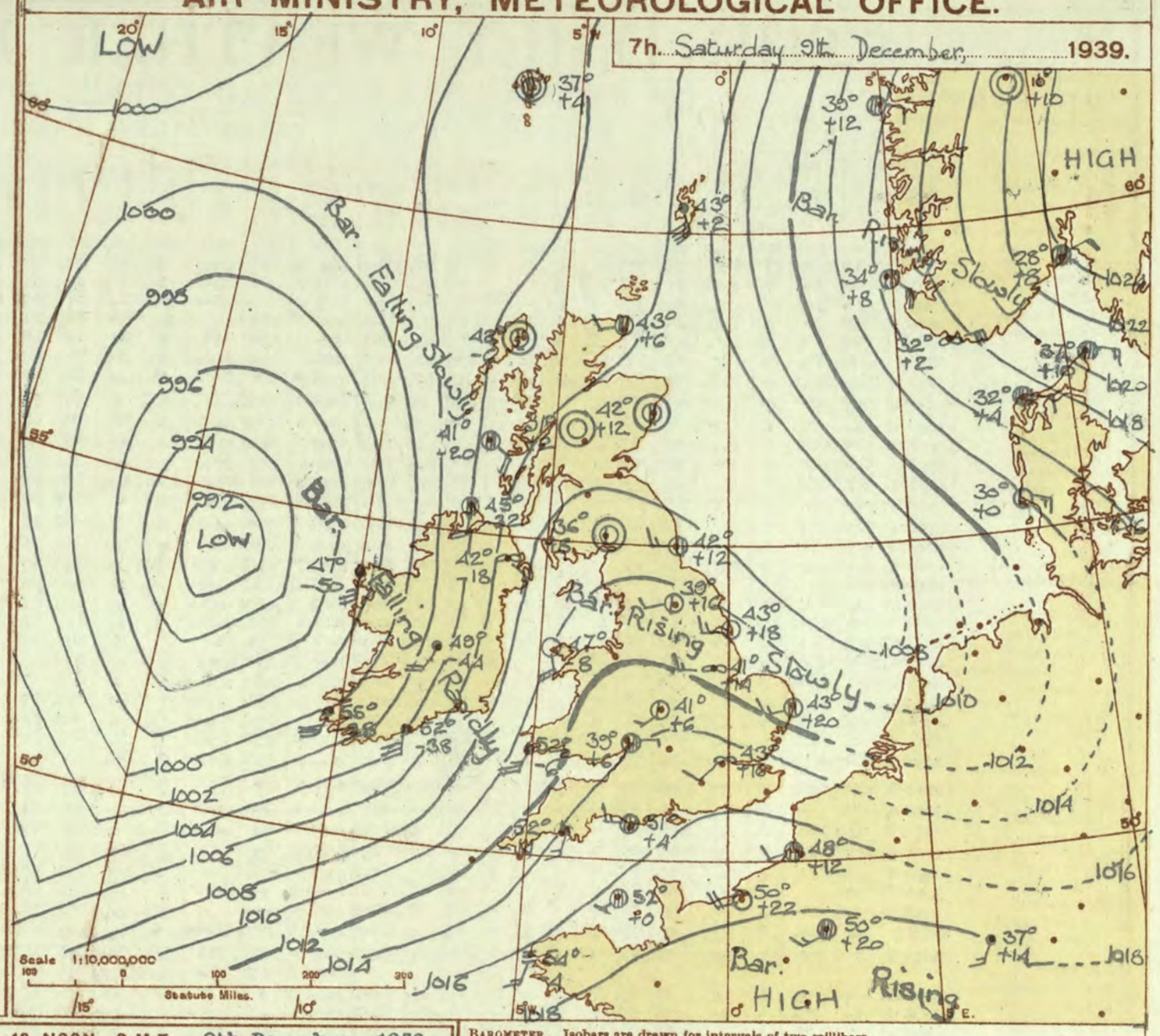
Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.



Districts.	Forecasts for the 24 hours commencing 12 noon, G.M.T. 9th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Fresh to strong southwesterly winds, veering west tomorrow; a period of continuous rain today followed by an improvement with bright intervals tomorrow; very mild, becoming cooler.
5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England	Strong southwesterly winds, veering west late today; continuous rain and fog patches at first; an improvement late today; bright intervals and local showers tomorrow; very mild, becoming cooler.
9 N. Midlands ... 10 N.E. England 11 S.E. Scotland	Freshening south to southwest winds becoming strong westerly; period of continuous rain followed by an improvement with bright intervals and local showers tomorrow; very mild, becoming cooler.
12 S.W. Scotland & Isle of Man. 13 A. W. Scotld. B.N.W.Scotland. 14 Mid Scotland	Fresh to strong south to southwest winds, becoming strong westerly; period of continuous rain followed by an improvement with bright intervals and local showers; very mild becoming cooler.
15 N. E. Scotland 16 Orkneys and Shetlands	Freshening south to southeast winds, veering west later; continuous rain later today, some improvement later; very mild becoming cooler tomorrow.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Strong westerly winds probably moderating and backing later; bright intervals and showers; becoming cooler.

Barometer. Isobars are drawn for intervals of two millibars.
Wind, Weather Symbols. For explanation see opposite page.
Sea Disturbance. ~~ Rough. ≈≈ High.
Barometric Change from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

General Inference.

A depression off northwest Ireland will move northeast and will be associated with freshening winds and rain in all districts. Over Ireland and England winds will be strong southwesterly but will later veer to west. An improvement in the weather will spread eastwards and will reach Eastern England tomorrow.

Further Outlook.

Continuing unsettled.

Time of Issue of Gale Warnings.

South Cone hoisted at 0620 8/12/39 in district 16 and Dogger.

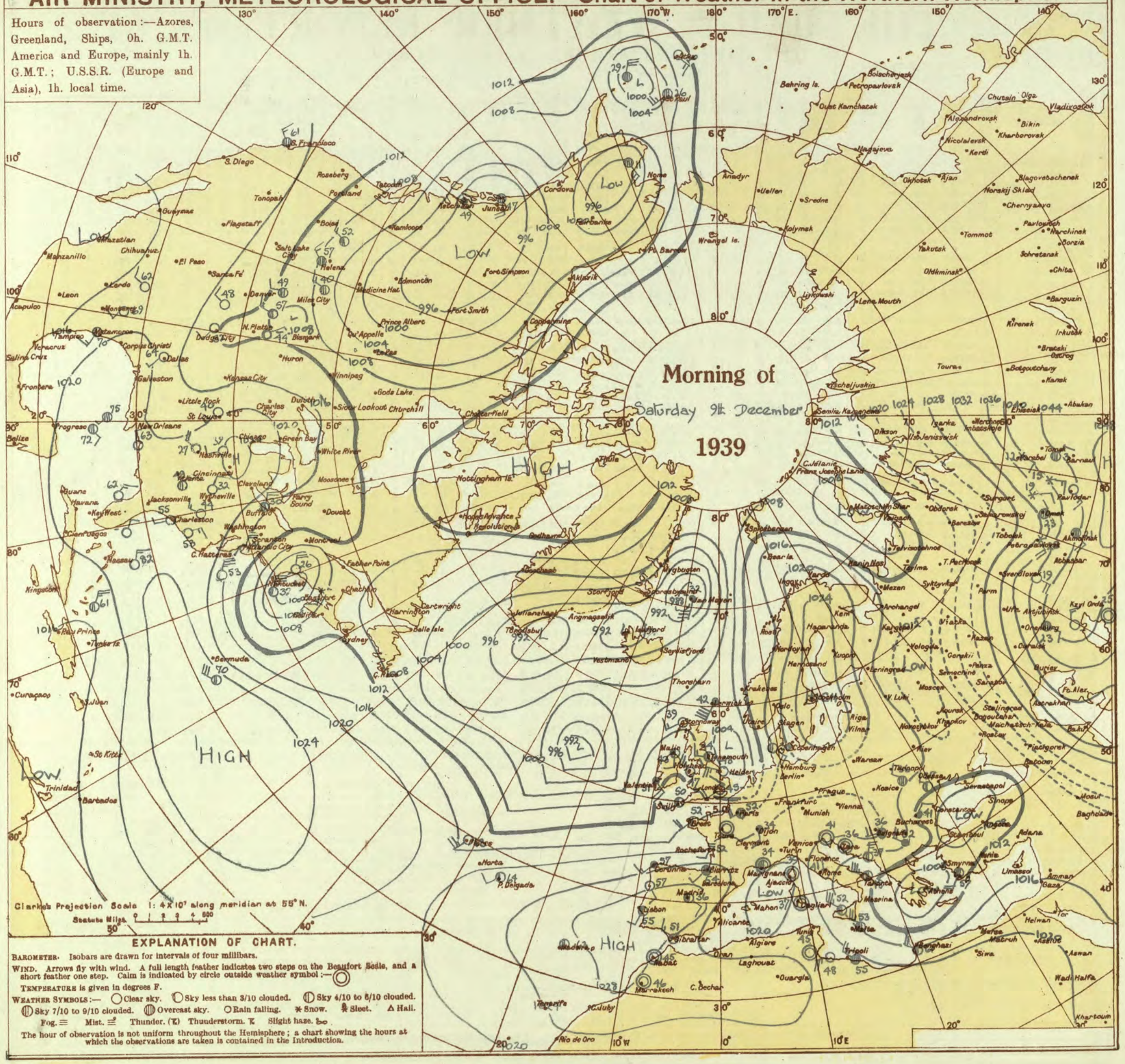
South Cone hoisted at 0445 9/12/39 in districts 5, 6, 7, 8, 12, 17, 18, 19 and 20.

Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Saturday 9th. December 1939.

No. 28,506

OBSERVATIONS at 1 hr. G.M.T. 9th. December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force 0–12 (4)	Weather. (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1011.9	+22	W'S	4	≡	45	92	6	-	-	-	0	0	-
	S. Farnborough	226	1012.1	+22	W'S	3	≡	45	92	6	-	7	-	0	1	-
	Boscombe Down	417	1012.9	+18	W	3	≡	43	97	6	-	-	-	0	0	-
	Calshot (Sthmtn.)	8	1012.8	+18	WSW	2	≡	47	92	6	-	-	-	0	0	-
	Lympne ...	346	1011.6	+30	W'N	3	b	45	85	6	-	-	-	0	0	-
	Manston ...	154	1010.2	+38	WNW	4	≡	46	85	6	5	-	-	Tr	Tr	1500
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1008.6	+42	W'N	4	≡	46	85	6	-	-	-	0	0	-
	Gorleston ...	5	1006.3	+36	W	4	bc	43	92	7	8	-	-	2-3	2-3	2500
	Mildenhall ...	19	1008.8	+28	W	2	≡	43	92	6	5	-	-	1	1	4000
	Cranwell ...	240	1008.3	+22	WNW	4	≡	44	92	5	5	-	-	2-3	2-3	2500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1011.8	+22	WSW	2	bc	44	92	6	5	-	-	4-6	4-6	1500
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1013.4	+6	WNW	4	bc	50	97	8	5	-	-	4-6	4-6	2500
	Bristol ...	209	1012.9	+12	W'S	3	bc	47	92	7	5	-	-	2-3	2-3	1500
	Portland Bill ...	32	1013.0	+20	WNW	3	bc	51	97	8	5	-	-	4-6	4-6	4000
	Plymouth ...	82	1014.9	+10	SW	1	≡	48	97	6	5	-	-	2-3	2-3	4000
	The Lizard ...	240	1015.1	0	W	3	bc	50	97	7	4	-	-	4-6	4-6	2500
	Scilly (St. Mary's)	163	1014.9	-2	SW'S	3	bc	50	97	7	5	-	-	4-6	4-6	2500
	Guernsey ...	175														
6	Pembroke ...	142	1015.3	0	W	3	bc	50	92	7	2	-	-	2-3	2-3	2500
7	Holyhead ...	26	1010.6	+16	W'N	4	b	47	85	8	2	-	-	Tr	Tr	2500
	Chester (Sealand)	16	1010.2	+14	W	3	≡	49	85	5	3	-	-	9+	9+	2500
8	Manchester ...	70	1008.7	+18	W'S	2	≡	47	92	6	3	-	-	10	10	2500
10	Spurn Head ...	29	1006.0	+20	WNW	3	b	43	85	6	-	-	-	0	0	-
	Catterick ...	175														
	Tynemouth ...	108	1005.7	+10	W	3	bc	44	85	7	5	-	-	2-3	2-3	2500
11	St. Abbs Head	280	1005.0	+8	WNW	3	b	44	92	6	4	-	-	1	1	1500
	Leuchars ...	36	1005.2	+4	W	3	c	48	85	6	5	-	-	7-8	7-8	4000
12	Renfrew (Abbots I.)	19	1007.3	+10	W	2	≡	48	97	6	5	4	-	2-3	2-3	1500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1008.9	+18	NWW	4	c	48	92	7	5	-	-	7-8	7-8	2500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80														
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1004.4	-2	SSW	1	≡	41	97	5	5	2	-	7-8	10	1500
16	Lerwick ...	156	1006.4	+10	SSW	8	rr	42	92	6	6	2	-	4-6	10	800
17	Blacksod Point	18	1006.8	-12	S	3	c	49	92	7	8	-	-	10	10	800
18	Malin Head ...	84	1007.7	+10	S	1	bc	48	92	8	8	-	-	4-6	4-6	5700
	Aldergrove ...	268	1009.3	+12	S'W	2	≡	48	97	6	-	-	-	9	0	-
19	Birr Castle ...	173	1010.9	0	WNW	1	c	39	97	7	3	-	-	10	10	2500
20	Valentia Obsy.	30														
	Roches Point	22														

OBSERVATIONS at 7 hr. G.M.T. 9th. December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1015.3	+22	SW'W	2	≡	42	97	5	-	3	1	0	1	-	1	*
	Croydon ...	1015.1	+16	SW	2	≡	43	97	6	-	4	1	0	1	-	1	*
	S. Farnborough	1015.1	+14	W'S	3	≡	42	97	6	-	-	1	0	1	-	1	*
	Boscombe Down	1015.1	+10	SSE	2	≡	41	97	6	5	-	-	1	1	2500	1	*
	Calshot (Sthmtn.)	1015.2	+10	SW	2	≡	44	92	6	5	3	-	1	2-3	2500	1	1
	Lympne ...	1015.7	+26	W'N	3	≡	42	92	6	5	-	2	1	4-6	800	1	§1
	Manston ...	1014.3	+22	W	3	≡	42	92	6	-	3	1	0	2-3	-	1	*
2	Shoeburyness ...	1014.2	+16	W	1	bc	43	92	6	-	4	1	0	2-3	-	1	*
	Felixstowe ...	1013.1	+18	W	3	≡	43	92	6	5	-	6	Tr	7-8	4000	1	1
	Gorleston ...	1011.0	+20	WSW	3	bc	43	92	6	5	-	-	2-3	4-6	2500	1	2
	Mildenhall ...	1013.2	+22	SW'W	3	≡	40	92	6	-	4	-	0	2-3	-	1	*
	Cranwell ...	1011.3	+14	W	3	≡	41	97	6	5	4	1	1	2-3	4000	1	*
3	Birmingham ...	1013.0	+6	SW	1	b	41	85	6	-	-	5	0	1	-	1	*
	Upper Heyford	1014.8	+12	-	0	bjf	36	97	6	-	4	-	0	Tr	-	1	*
4	Ross-on-Wye	1013.5	+6	E	1	c	39	92	7	-	5	2	0	7-8	-	1	*
5	Hartland Point	1011.9	-16	SSW	3	r	49	92	8	5	2	-	7-8	10	2500	1	3
	Bristol ...	1014.3	+4	SSW	1	c	45	97	6	5	-	-	9+	9+	1500	2	*
	Portland Bill ...	1015.3	+4	W	3	c	51	92	8	5	-	-	7-8	7-8	4000	1	3
	Plymouth ...	1014.1	-14	S'W	3	≡	52	97	6	-	2	-	10	10	1500	1	2
	The Lizard ...	1014.1	-14	SSE	3	id	52	92	4	5	-	-	10	10	1500	1	3
	Scilly (St. Mary's)	1012.2	-14	S'W	5	f	52	97	2	-	-	-	10	10	<150	1	2
	Guernsey ...	1016.0	0	SW'W	1	c	52	92	7	8	1	-	7-8	10	2500	1	3
6	Pembroke ...	1010.8	-6	S'W	5	ir	52	97	7	8	-	-	9+	9+	1500	1	2
7	Holyhead ...	1010.0	-8	SSE	4	c	47	85	7	5	1	-	4-6	7-8	4000	1	2
	Chester (Sealand)	1011.8	+2	SSE	2	e/f	40	85	4	5	7	-	4-6	4-6	2500	1	*
8	Manchester ...	1011.9	+10	SSW	3	≡	44	92	6	5	-	-	10	10	2500	1	*
10	Spurn Head ...	1010.7	+18	W	3	b	48	97	6	-	8	-	0	Tr	-	1	1
	Catterick ...	1010.4	+16	WSW	1	b	39	92	3	5	-	5	Tr	Tr	2500	1	*
	Tynemouth ...	1009.3	+12	W	3	bc	42	92	6	2	-	-	2-3	2-3	4000	1	2
11	St. Abbs Head	1007.7	+12	WNW	2	bc	45	85	8	4	-	-	2-3	2-3	2500	0	2
	Leuchars ...	1007.6	+10	-	0	b	39	92	7	5	-	-	Tr	Tr	4000	1	*
12	Renfrew (Abbots I.)																*
	Eskdalemuir ...	1003.3	+8	-	0	b	36	97	7	5	-	1	1	1	800	5	*
	Point of Ayre ...	1003.3	-4	S'W	1	c	42	97	8	5	2	-	Tr	9+	2500	1	1
13A	Tiree	1004.0	-20	SE	4	c	41	85	8	5	-	-	7-8	7-8	2500	0	3
13B	Stornoway ...	1005.5	-6	-	0	b	42	92	7	5	-	-	Tr	Tr	4000	1	0
15	Dalwhinnie ...	*	+2	-	0	b	31	97	8	-	-	-	0	0	-	0	*
	Aberdeen ...	1007.0	+12	-	0	bc	42	92	6	3	-	-	2-3	2-3	4000	1	1
	Wick ...	1005.5	+26	WSW	2	c	43	92	7	5	7	8	4-6	7-8	1500	1	2
16	Lerwick ...	1006.3	+2	S'E	8	ir	43	92	6	6	2	-	4-6	10	800	1	*
17	Blacksod Point	1006.8	-50	S	3	r	47	97	6	6	-	-	10	10	<150	1	4
18	Malin Head ...	1003.8	-32	S	4	c	45	75	7	8	-	-	7-8	7-8	5700	0	3
	Aldergrove ...	1007.2	-18	SE	2	≡	42	92	6	-	2	-	0	10	-	1	*
19	Birr Castle ...	1002.8	-44	SSW	4	rr	49	92	7	6	2	-	7-8	10	1500	1	*
20	Valentia Obsy.	1001.0	-28	S'W	6	r	55	97	6	6	2	-	9	10	1500	1	5
	Roches Point	1004.5	-38	S	6	rr	52	97	6	6	2	-	7-8	10	800	1	4

PAST 24 HOURS.

Stations	Temperature. Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Night 18h–7h mm. (35)	Sunshine 8th. Hrs. (36)
London (Kew)	53	42	29	8	Tr	0.0
Croydon ...	53	42	34	11	Tr	0.0
S. Farnborough	54	41	34	8	Tr	0.0
Boscombe Down	63	39	34	12	0.2	0.0
Calshot (Sthmtn.)	54	43	39	9	-	0.0
Lympne ...	51	37	37	13	0.1	0.0
Manston ...	50	41	37	6	0.1	0.0
Shoeburyness ...	53	42	35	7	-	0.0
Felixstowe ...	48	42	38	11	1	0.0
Gorleston ...	47	43	42	15	5	*
Mildenhall ...	52	39	34	11	1	0.0
Cranwell ...	51	40	36	11	0.1	0.0
Birmingham ...	53	41	37	9	-	0.0
Upper Heyford	52	35	23	17	0.1	*
Ross-on-Wye	54	38	29	7	-	0.0
Hartland Point	54	48	45	3	Tr	0.0
Bristol ...	55	43	35	16	Tr	0.0
Portland Bill ...	54	50	*	4	-	*
Plymouth ...	54	45	39	3	0.4	0.1
The Lizard ...	54	49	*	1	Tr	0.9
Scilly (St. Mary's)	53	49	*	1	1	1.8
Guernsey ...	55	50	42	7	*	0.0
Pembroke ...	53	48	*	0.4	0.3	0.0
Holyhead ...	51	44	40	17	-	0.0
Chester (Sealand)	54	40	33	5	-	0.5
Manchester ...	53	42	37	14	0.3	0.0
Spurn Head ...	48	42	*	16	Tr	0.0
Catterick ...	43	39	30	10	0.1	0.0
Tynemouth ...	45	42	37	13	-	
St. Abbs Head	45	43	*	5	-	*
Leuchars ...	44	38	31	1	0.2	0.0
Renfrew (Abbots I.)	44			1		
Eskdalemuir ...	43	35	30	5	0.1	0.0
Point of Ayre ...	48	41	*	3	0.2	0.0
Tiree	49	36	30	3	-	0.0
Stornoway ...	50	38	*	10	0.3	0.0
Dalwhinnie ...	43	30	24	2	4	0.0
Aberdeen ...	45	40	32	2	3	0.0
Wick ...	47	41	*	-	1	*
Lerwick ...	48	41	*	-	6	0.0
Blacksod Point	51	46	*	0.3	2	*
Malin Head ...	48	40	*	2	0.1	0.0
Aldergrove ...	46	37	29	0.6	-	0.0
Birr Castle ...	47	38	33	2	3	0.0
Valentia Obsy.	52	43	38	2	15	1.8
Roches Point	53	41	*	1	6	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h. other stations except for rainfall which is 9h—18h.

Stations	Height above M.S.L. in feet.	Weather Morning. (24 hrs. ended 9h.)	Weather Afternoon.	Weather Night.	Temperature Day Max. °F.	Temperature Night Min. °F.	Temperature Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity 15h. G.M.T. % (Yesterday.)	Humidity 9h. G.M.T. % (To-day.)	Visibility 9h. (To-day.)
Kew...	18	[illegible]	[illegible]	[illegible]	53	42	29	8	Tr	0.0	•	•	
Croydon	217	[illegible]	[illegible]	[illegible]	53	42	34	11	Tr	0.0	•	•	
Greenwich (Royal Observatory)...	149	rr	rrd	dbm	53	40	32	0.3	Tr	0.0	97	95	4
City (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park) ...	27	•	•	•	54	40	35	8			94	91	•
Regents Pk. (Botanic Gardens)‡...	168	•	•	•	53	42	34	8	-		97	96	•
Camden Square	110	c	c	•	53	33	31	7	-	•	•	98	•
Kensington	80	cr	cr	•	54	40	28	8	0.1		96	86	•
Hampstead Observatory	450	cr	or	bcof	52	40	37	11	-		•	99	•

Atmospheric Pollution.
Milligrams of Solid Impurity per cubic metre.
24 hrs. ended 7h. G.M.T. 9th.

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations.	18h. G.M.T. 8th. December Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	7h. G.M.T. 9th. December Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
Paris	1014.7	S	4	e/r	43	1018.3	SW	3	c	50	*	32	*	-
Brussels														
Berlin														
Zürich						1018.1	NE	3	c	36	•	•		-
Rome														

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 —Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 „
2 Fog	550 „
3 Moderate fog	1,100 „
4 Mist or haze	1½ miles.
5 Poor visibility	2½ „
6 Moderate „	6½ „
7 Good „	12½ „
8 Very good „	31 „
9 Excellent „	beyond 31m.

COLUMN 30 —Code for State of Sea.

0 Calm.	5 Very rough.
1 Smooth.	6 High.
2 Slight.	7 Very high.
3 Moderate.	8 Preciptious.
4 Rough.	9 Confused.

TERMS OF SUBSCRIPTION. { Single Copies, 1d. each: by post 1½d. 2/6 per month; 6/6 per quarter; 25/- per year.

METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Sunday, 10th December, 1939.

No. 28507

OBSERVATIONS at 13h. G.M.T. 9th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1014.1	-14	S'W	2	z₀	49	92	5	-	3	6	0	9+	-
	Croydon ...	1014.8	-10	S'W	3	z₀	49	92	6	5	4	-	9+	9+	4000
	S. Farnborough	1014.1	-18	SSE	3	c	50	92	6	5	7	-	4-6	10	2500
	Boscombe Down	1012.7	-34	S'E	4	df	51	97	3	-	-	-	10	10	<150
	Calshot (Soton.)	1013.9	-18	S	5	d₀d₀	51	97	6	5	-	-	10	10	800
	Lympne ...	1016.4	-6	SW'S	1	c	49	85	7	-	7	-	0	9	-
	Manston ...	1015.5	-2	SW'W	2	z₀	50	75	6	-	7	2	0	4-6	-
2	Shoeburyness ...	1015.2	-8	SW	2	c	48	85	6	-	7	-	0	9+	-
	Felixstowe ...	1014.6	-6	SW	2	z₀	48	85	6	-	3	8	0	4-6	-
	Gorleston ...	1014.4	-4	WSW	2	bc	46	85	6	-	4	-	0	4-6	-
	Mildenhall ...	1013.5	-10	SSW	2	c	50	75	7	5	3	6	2-3	7-8	5700
	Cranwell ...	1012.0	-10	S'W	3	z₀	46	92	6	5	7	-	2-3	9+	4000
3	Birmingham	1010.5	-22	S	3	dd	46	92	5	6	-	-	10	10	800
	Upper Heyford	1013.0	-22	SSE	2	o/f	45	97	5	5	-	-	10	10	220
4	Ross-on-Wye ...	1010.0	-30	S	3	d₀d	59	97	5	5	-	-	10	10	800
5	Hartland Point	1008.3	-20	SW	4	r	54	97	7	-	2	-	9+	9+	2500
	Bristol ...	1011.0	-28	SSW	3	ir₀	52	97	7	5	2	-	9	10	800
	Portland Bill ...	1012.6	-18	SSW	4	id	53	92	6	5	-	-	10	10	1500
	Plymouth ...	1011.5	-22	SW'S	5	d₀d₀	53	97	4	5	-	-	10	10	220
	The Lizard ...	1010.7	-16	SSW	5	df	53	97	2	5	-	-	10	10	800
	Scilly (St. Mary's)	1009.4	-14	SSW	5	f	53	97	2	-	-	-	10	10	<150
	Guernsey ...	1014.3	-16	S'W	1	c	54	92	7	5	2	-	4-6	10	2500
6	Pembroke ...	1006.4	-20	SW	6	r₀r₀	53	97	5	5	-	-	10	10	800
7	Holyhead ...	1003.6	-34	SSE	5	r₀r₀	51	97	6	6	2	-	7-8	10	450
	Chester (Sealand)	1008.1	-30	SE'S	4	r₀r₀	45	85	6	5	2	-	4-6	10	2500
8	Manchester ...	1008.7	-30	SE	3	rr	45	92	5	5	2	-	9	10	1500
10	Spurn Head ...	1011.6	+4	S'E	2	bc	48	85	6	-	4	8	0	4-6	-
	Catterick ...	1008.8	-22	SSE	2	m	45	92	4	-	2	-	10	10	800
	Tynemouth ...	1009.1	-16	SW	3	cf	45	85	3	5	-	-	7-8	7-8	1500
11	St. Abbs Head	1006.7	-14	SW	4	c	41	92	9	5	2	-	7-8	9	2500
	Leuchars ...	1005.4	-18	ENE	2	z₀	40	97	6	5	-	-	10	10	2500
12	Renfrew (Abbots I.)	1003.7	-46	ESE	3	rr	44	92	4	6	2	-	7-8	10	800
	Eskdalemuir ...	1005.4	-38	SSE	3	r₀r₀	41	92	6	6	2	-	4-6	10	450
	Point of Ayre ...	1002.6	-48	S'E	6	rr	57	97	6	6	2	-	9	10	1500
13A	Tiree ...	993.0	-66	N'E	7	rr	46	97	6	-	2	-	10	10	800
13B	Stornoway ...	998.5	-40	ESE	5	pr	46	75	7	5	2	-	2-3	10	2500
15	Dalwhinnie ...	1002.7	-36	S	5	rr	38	92	6	6	1	-	4-6	10	2500
	Aberdeen ...	1005.6	-20	SSE	2	c/f	45	85	6	2	7	6	1	9	2500
	Wick ...	1003.7	-20	SSE	4	c	46	92	7	5	1	9	4-6	9+	2500
16	Lerwick...	1006.1	-6	SSE	6	c/r	45	85	7	8	2	-	7-8	10	800
17	Blacksod Point..	989.8	-34	S	7	cq	54	85	7	9	-	-	10	10	<150
18	Malin Head ...	992.1	-40	SE	4	ir₀	51	92	7	6	2	-	4-6	9+	2500
	Aldergrove ...	996.5	-54	SSE	5	r₀r₀	52	92	6	6	2	-	9+	10	800
19	Birr Castle ...	997.5	-26	SSW	3	c/r	57	85	7	6	2	-	4-6	10	1500
20	Valentia Obsy. †	998.4	-2	SW	6	c	54	85	7	5	2	-	7-8	10	1500
	Roches Point ...	1000.7	-28	S	5	dd	53	97	6	5	-	-	10	10	450

OBSERVATIONS at 18h. G.M.T. 9th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1010.9	-12	S'W	3	z₀	51	97	5	5	-	-	10	10	2500	1	*
Croydon	1012.0	-22	S	3	d₀d₀	51	97	4	6	2	-	7-8	10	800	1	*
S. Farnborough	1010.8	-16	SSE	3	d₀d₀	51	92	5	5	-	-	10	10	450	1	*
Boscombe Down	1009.9	-12	S	4	df	52	97	3	-	-	-	10	10	<150	1	*
Calshot (Soton.)	1010.9	-18	SSW	5	d₀d₀	52	97	5	5	-	-	10	10	450	1	3
Lympne	1014.4	-10	SSW	3	df	50	97	2	-	-	-	10	10	<150	1	§3
Manston	1013.3	-10	SSW	4	ir₀	50	85	6	6	-	-	10	10	800	1	*
Shoeburyness	1013.0	-18	S'W	2	c	50	92	6	5	-	-	10	10	4000	1	*
Felixstowe	1012.2	-12	S	2	id₀	48	92	6	5	2	-	7-8	10	5700	1	1
Gorleston	1011.8	-6	SSE	4	c/r	48	85	6	6	-	-	10	10	2500	1	2
Mildenhall	1010.1	-18	S'E	4	ir₀	50	92	6	-	2	-	10	10	800	1	*
Cranwell	1008.2	-24	S	4	r₀r₀	48	97	4	5	-	-	10	10	450	1	*
Birmingham	1006.9	-18	S	3	r₀r₀	51	97	5	6	-	-	10	10	800	1	*
Upper Heyford	1009.7	-14	S	2	z₀	50	97	5	5	-	-	10	10	450	1	*
Ross-on-Wye	1006.7	-16	S	3	c/d	54	97	6	6	-	-	10	10	1500	1	*
Hartland Point	1004.8	-20	SSW	5	dd	53	97	7	6	2	-	7-8	10	1500	1	3
Bristol	1008.1	-14	S'W	4	rr	54	97	6	5	2	-	10	10	450	2	*
Portland Bill	1010.3	-12	SW	4	dd	53	92	6	5	-	-	10	10	1500	1	4
Plymouth	1008.1	-18	SW'S	5	id	54	97	5	5	-	-	10	10	220	1	4
The Lizard	1007.3	-20	S	5	df	54	97	3	5	-	-	10	10	800	1	4
Scilly (St. Mary's)	1005.8	-16	SSW	5	m/f	54	97	4	5	-	-	10	10	800	1	3
Guernsey	1012.0	-8	SSW	1	o	55	97	6	5	-	-	10	10	1500	1	3
Pembroke	1003.0	-16	SW'S	6	ir	53	97	6	5	-	-	10	10	800	1	3
Holyhead	999.5	-22	S	6	r₀r₀	53	97	7	-	2	-	10	10	800	1	3
Chester (Sealand)	1003.1	-26	SE'S	4	z₀	51	92	5	5	-	-	10	10	800	1	*
Manchester	1004.4	-20	SSE	4	rr	51	97	4	6	-	-	10	10	800	1	*
Spurn Head	1007.7	-16	S'E	4	rr	46	97	5	5	-	-	10	10	800	2	3
Catterick	1004.5	-20	SSE	3	rf	43	97	3	5	-	-	10	10	220	1	*
Tynemouth	1004.5	-20	S	4	rr	46	92	5	-	2	-	10	10	1500	1	1
St. Abbs Head	998.7	-48	S	7	rr	44	92	6	5	-	-	10	10	800	1	3
Leuchars	998.2	-46	SSE	4	r₀r₀	45	92	6	5	-	-	10	10	2500	1	*
Renfrew (Abbots I.)	995.9	-38	S	4	RR	51	85	5	6	2	-	7-8	10	800	2	*
Eskdalemuir	999.0	-32	S'E	4	r₀r₀	45	97	5	6	-	-	10	10	220	2	*
Point of Ayre	998.0	-20	SSW	6	r₀r₀	53	97	6	-	2	-	10	10	1500	1	3
Tiree	987.6	-24	S'E	7	c	52	92	7	8	-	-	7-8	7-8	1500	1	5
Stornoway	989.5	-30	ESE	4	RR	47	92	6	5	-	-	10	10	1500	1	2
Dalwhinnie	992.0	-40	SE	9	RR	40	92	6	6	1	-	4-6	10	1500	1	*
Aberdeen	1000.0	-36	S'E	5	r₀r₀	46	92	5	6	2	-	9	10	800	1	3
Wick	997.6	-26	SE	8	rr	46	92	7	5	2	-	7-8	10	1500	1	4
Lerwick	1002.9	-10	SSE	6	c/r	45	85	7	8	2	-	7-8	10	800	1	*
Blacksod Point	988.1	-2	S	9	cq	50	92	7	9	-	-	10	10	<150	4	8
Malin Head	988.4	-8	S	6	c	51	75	7	9	-	-	7-8	7-8	2500	1	4
Aldergrove	993.4	-6	SSW	5	bc	52	75	6	5	2	-	2-3	4-6	1500	2	*
Birr Castle	997.3	+6	SSW	4	c	51	75	8	8	7	-	4-6	9	1500	1	*
Valentia Obsy. †	1000.4	+18	WSW	6	bc/pr	51	75	8	2	4	-	4-6	4-6	2500	1	4
Roches Point	1001.1	+6	W	3	c	51	85	8	5	-	-	7-8	7-8	1500	1	4

PAST 24 HOURS. WEATHER.

Stations	7h.–13h. 9th (37)	13h.–18h. 9th (38)	18h. 9th to 1h. 10th (39)	1h.–7h. 10th (40)
London (Kew)	bmxcfm₀	cm₀	cm	ciddize
Croydon	bm₀wbcm	cmir₀d₀	oddmm	oddrrm
S. Farnborough	bfcir₀	d₀r₀d₀c	ddmc	d₀qrcr
Boscombe Down	dmcirddf	oddf	oddfddm	cbcm₀b
Calshot (Soton.)	wf₀d₀d₀m	r₀d₀d₀d₀	pdfdr₀m	cf₀r₀fbc
Lympne	bbcm₀bc	cr₀cm₀jd₀	fd₀omfd₀	Fdom₀m
Manston	bcm₀	cm₀ir₀	or₀r₀id₀	ddor₀r₀
Shoeburyness	bcm	cm₀r₀	c	r₀r₀c
Felixstowe	cm₀bcm	bcoid₀	ddom₀r₀	id₀rrm
Gorleston	bc	bcor₀	oir₀q	or₀r₀
Mildenhall	bcm₀cm	bcm₀pir₀	r₀r₀ir₀c	r₀crgo
Cranwell	bccm₀	ddr₀r₀m	r₀r₀cmdd₀	ddrrcm
Birmingham	bod	odr₀	or₀ir	orbc
Upper Heyford	bfoFm	cmcd₀dmd	dm₀pr₀ir₀d₀d₀	cr₀f₀ir₀cm
Ross-on-Wye	cm₀rod₀	d₀r₀od	idir	ocb
Hartland Point	circd	r₀r₀ddc	ddrr	cpbc
Bristol	cdr₀	crcr₀	crdRr₀	cr₀Rbcb
Portland Bill	oidz₀	ddz₀	odd	cbc
Plymouth	r₀r₀oddm	oid₀m₀	oid irm	bcbm
The Lizard	df	Fdf	cbc	prcbc
Scilly (St. Mary's)	offc	ffcid	oid bc	bcbbc
Guernsey	cpr₀	cd₀dd	oddr	odrbc
Pembroke	rrm₀q	irmqp	cq bc	bcq
Holyhead	r₀r₀rrc	rrd₀d₀o	r₀r₀rc	c
Chester (Sealand)	bccr₀m	r₀r₀dcm₀	cmddiRr	cmbm
Manchester	mir₀r₀r₀r	crrmm		cbcb
Spurn Head	bcz₀w	orrm₀	orro	[illegible]
Catterick	bccom	omfr₀r₀	ofr₀r₀pr₀	cpr₀pr
Tynemouth	bccff	coirff	orro	oir₀c
St. Abbs Head	bcc	m₀rro	c	cbc
Leuchars	cxm, mm	cmrrr₀	rrrcirc	cdc
Renfrew (Abbots I.)	cffirmr	cmrrmr	rcRRrm	cm bcm
Eskdalemuir	boffd₀	orrRR	orrmc	c
Point of Ayre	rr	r₀r₀	c	bcc
Tiree	oRR	orrr₀c	cir	cir
Stornoway	b,cpr₀	cRR	cRcr	cir
Dalwhinnie	crr	cRr (gale)	*	cRrc (gale)
Aberdeen	bifc	cr₀r₀	crrc (gale)	cmc
Wick	bcc	r₀rrr (gale)	irmq (gale)	mcqc (gale)
Lerwick	cir	cirq	crrom (gale)	crrqm (gale)
Blacksod Point	cq	cq (gale)	PRcq	cq
Malin Head	cir₀r₀rc	c	c	cpfc
Aldergrove	rrm₀r₀c	cr₀r₀irm	bccbc	bcdr₀o
Birr Castle	crrir	circ	bc	cpr
Valentia Obsy. †	r₀r₀DDrrc	cpr₀bc	bcqpfc	cpr₀phrpr
Roches Point	drdd	irc	bcb	bccirrr

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s₀, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s₀/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r₀, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
Solar halo. lunar halo. Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

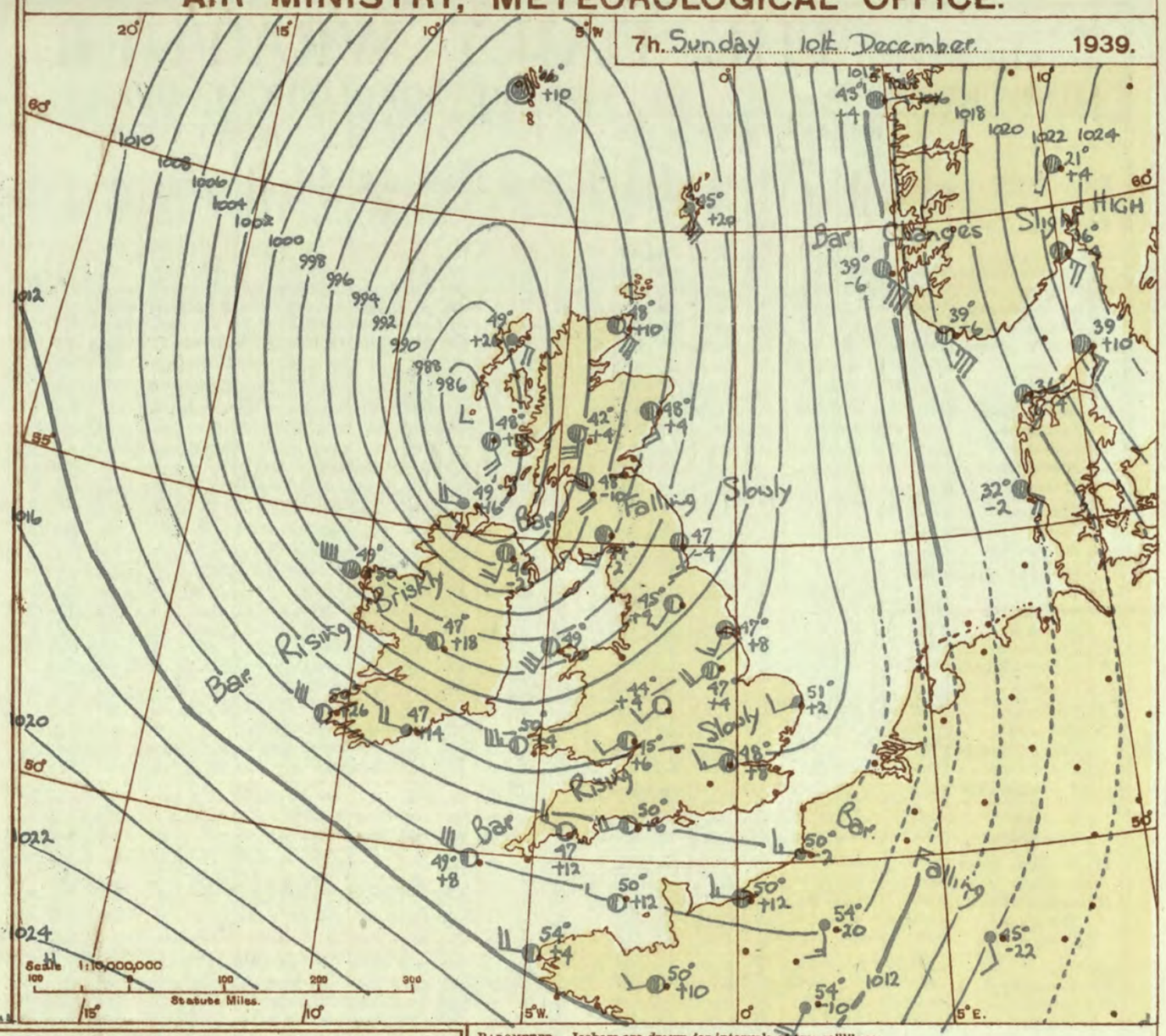
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Sunday 10th December 1939.



BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 10th December, 1939
1 S.E. England 2 E. England ... 3 E. Midlands ...	Light to moderate southwest to west winds; fair with bright intervals; local morning mist inland; average temperature.
4 W. Midlands ... 5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Moderate to fresh southwest to west winds, moderating slowly; cloudy with showers to-day, bright intervals to-morrow; average temperature.
13 A. W. Scotld. / B.N.W.Scotland. 14 Mid Scotland 15 N. E. Scotland	Moderate to fresh south to southwest winds, moderating slowly; cloudy with intermittent rain; average temperature.
16 Orkneys and Shetlands	Fresh to strong south to southeast winds moderating slowly; cloudy with intermittent rain; average temperature.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Fresh to strong west to northwest winds moderating slowly; showers and bright intervals; average temperature.

GENERAL INFERENCE.

A depression north of Ireland is filling up and will continue to move slowly in a northerly direction. A small trough of low pressure over Eastern Ireland will move eastwards. There will be bright intervals and showers in western districts and winds will moderate gradually.

FURTHER OUTLOOK.

Continuing unsettled.

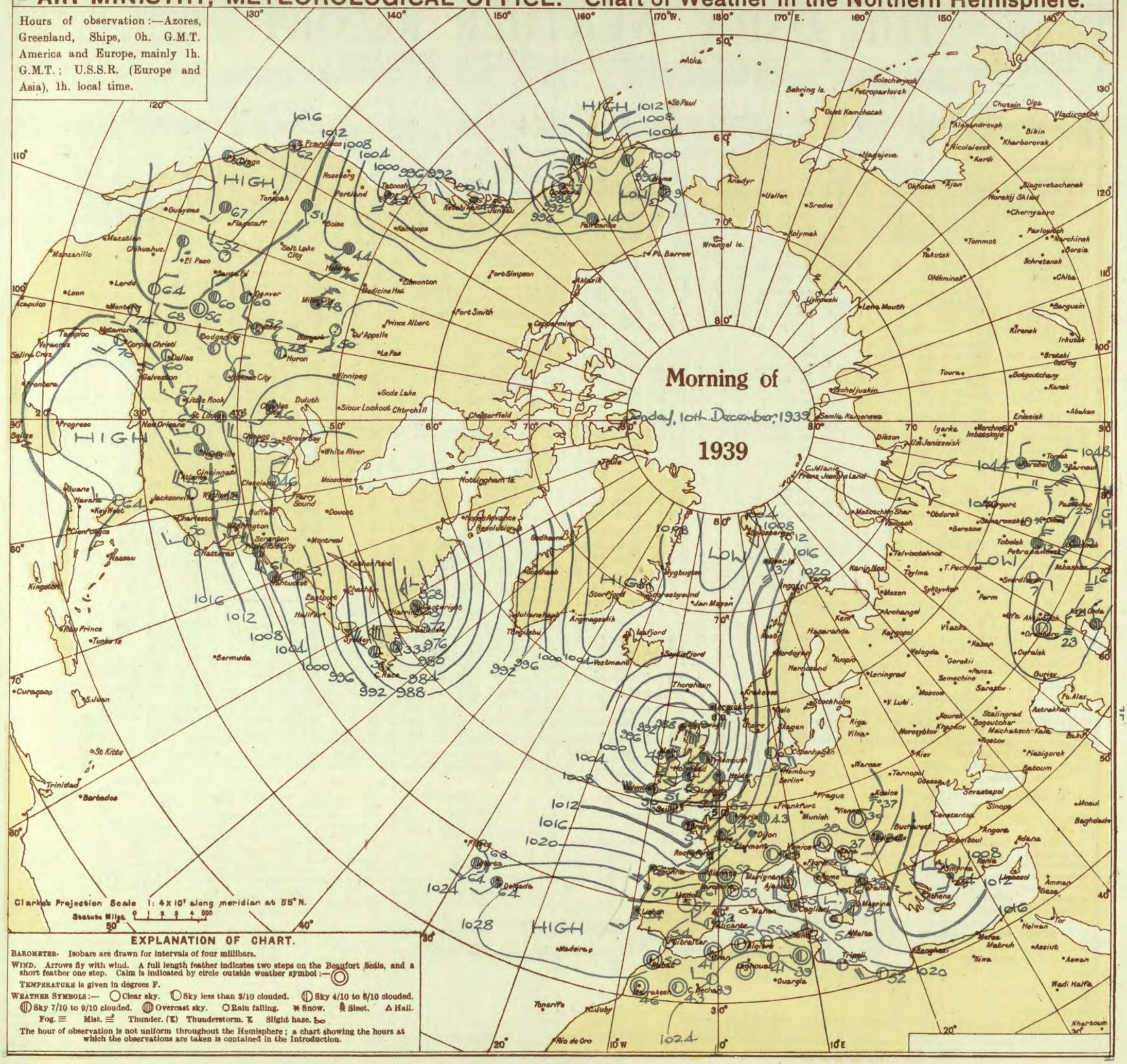
Forecasts issued at 1100 G.M.T

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

Hours of observation :—Azores, Greenland, Ships, 0h. G.M.T. America and Europe, mainly 1h. G.M.T.; U.S.S.R. (Europe and Asia), 1h. local time.



EXPLANATION OF CHART.

BAROMETER. Isobars are drawn for intervals of four millibars.

WIND. Arrows fly with wind. A full length feather indicates two steps on the Beaufort Scale, and a short feather one step. Calm is indicated by circle outside weather symbol :—

TEMPERATURE is given in degrees F.

WEATHER SYMBOLS :— Clear sky. Sky less than 3/10 clouded. Sky 4/10 to 6/10 clouded. Sky 7/10 to 9/10 clouded. Overcast sky. Rain falling. Snow. Sleet. Hail. Fog. Mist. Thunder. Thunderstorm. Slight haze.

The hour of observation is not uniform throughout the Hemisphere; a chart showing the hours at which the observations are taken is contained in the Introduction.

Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Sunday, 10th December, 1939.

No. 28507.

OBSERVATIONS at 1 hr. G.M.T. 10th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Amount Low 0–10 (12)	Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon	217	1006·9	-26	S'W	3	dd	54	97	8	-	2	-	10	10	800
	S. Farnborough	226	1005·4	-26	S	4	dd	53	97	6	6	-	-	10	10	800
	Boscombe Down	417	1005·5	-14	W'N	5	dd	49	97	4	-	2	-	10	10	450
	Calshot (Sthmtn.)	8	1005·8	-22	SW'W	4	id	53	97	5	5	-	-	10	10	450
	Lympne	346	1009·2	-26	S'W	4	dF	51	97	1	-	-	-	10	10	<150
	Manston	154	1008·6	-22	SW/S	4	dd	53	97	5	6	-	-	10	10	220
2	Shoeburyness	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe	15	1007·4	-22	S	3	c/r	49	97	5	5	-	-	10	10	800
	Gorleston	5	1007·2	-20	S'E	5	ir	49	92	6	6	-	-	10	10	1500
	Mildenhall	19	1005·0	-24	S	4	c	53	97	6	5	-	-	9+	9+	1500
	Cranwell	240	1003·1	-22	S'W	4	dd	52	97	4	5	-	-	10	10	800
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1005·0	-18	S'W	3	ir	51	97	6	6	2	-	7-8	10	450
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1005·2	+6	WNW	5	c	50	85	8	6	1	-	7-8	9	1500
	Bristol	209	1005·5	+2	W'S	4	c/r	50	92	7	5	2	-	7-8	10	1500
	Portland Bill	32	1006·2	-6	W	3	dd	51	92	7	5	-	-	10	10	1500
	Plymouth	82	1007·3	+2	W	3	bc	51	92	6	5	-	-	4-6	4-6	1500
	The Lizard	240	1008·6	+4	W	4	bc	50	92	7	8	-	-	4-6	4-6	1500
	Scilly (St. Mary's)	163	1008·0	+10	W'S	5	bc	51	88	8	5	-	-	2-3	2-3	1500
	Guernsey	175	1008·5	-8	W	1	dd	52	85	6	5	-	-	10	10	800
6	Pembroke	142	1008·7	0	W	6	bc	51	85	7	8	-	-	4-6	4-6	2500
7	Holyhead	26	1000·0	+4	SW	4	c	50	75	7	8	1	-	7-8	9	2500
	Chester (Sealand)	16	1001·8	+2	SSE	1	m	49	92	4	5	-	-	10	10	1500
8	Manchester	70														
10	Spurn Head	29	1002·7	-14	S'E	4	o	50	97	6	5	-	-	10	10	1500
	Catterick	175	1000·3	-6	SW	2-	pr	49	92	7	9	-	-	9	9	2500
	Tynemouth	108	1000·7	0	SW	4	o	51	92	6	5	-	-	10	10	1500
11	St. Abbs Head	280	996·6	+4	S	4	c	50	85	7	8	6	-	4-6	9	2500
	Leuchars	36	995·7	+4	SSW	3	c	60	85	8	5	7	-	9	10	4000
12	Renfrew (Abbots I.)	19	995·0	-2	W	3	z	49	75	6	5	-	-	9+	9+	2500
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	998·1	+2	SW'W	4	c	49	85	8	8	7	✓	7-8	9+	1500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway	80	987·3	-4	SE	6	ir	49	85	6	5	2	-	7-8	10	2500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick	81	991·6	+8	SE	8	oq	49	92	6	5	2	-	7-8	10	1500
16	Lerwick	156	996·4	-22	SSE	8	rr	45	97	5	6	2	-	4-6	10	450
17	Blacksod Point	18	989·7	-4	W	9	cq	48	97	7	9	-	-	10	10	450
18	Malin Head	84	987·1	0	SSW	5	c	48	75	7	6	-	-	7-8	7-8	4000
	Aldergrove	268	993·5	-4	SSW	5	bc	47	75	7	5	-	-	4-6	4-6	2500
19	Birr Castle	173	999·1	+4	WSW	3	bc	47	75	8	3	-	-	2-3	2-3	1500
20	Valentia Obsy.	30	1004·4	+10	W	6	c/pr	50	75	8	8	-	-	7-8	7-8	2500
	Roches Point	22	1004·1	+14	W	3	b	47	85	8	5	-	-	1	1	2500

OBSERVATIONS at 7 hr. G.M.T. 10th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Amount Low 0–10 (26)	Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1006·9	+6	SW	2	c	48	97	7	5	4	-	4-6	7-8	2500	1	*
Croydon	1007·2	+8	WSW	3	z	48	97	6	5	-	-	7-8	7-8	4000	1	*
S. Farnborough	1007·0	+6	SW	3	bc	47	97	7	-	3	-	0	4-6	-	1	*
Boscombe Down	1007·1	+8	SWW	3	bc	44	97	7	8	-	-	2-3	2-3	1500	1	*
Calshot (Sthmtn.)	1007·4	+8	WSW	2	bc	46	92	7	3	-	-	2-3	2-3	1500	1	2
Lympne	1007·9	+10	W	2	ir	48	97	7	5	7	-	7-8	10	1500	1	§2
Manston	1008·8	+8	NWW	2	rr	48	85	5	6	-	-	10	10	800	1	*
Shoeburyness	1006·7	+8	WSW	2	o/r	49	92	7	3	-	-	10	10	1500	1	*
Felixstowe	1005·5	+4	SW	2	rr	48	97	6	-	2	-	10	10	5700	1	1
Gorleston	1005·3	+2	W'S	2	rr	51	97	6	6	-	-	10	10	1500	1	2
Mildenhall	1005·2	+12	SW	4	c	49	97	6	5	7	-	7-8	10	1500	1	*
Cranwell	1003·2	+4	SW	4	z	47	92	6	5	-	-	9+	9+	1500	1	*
Birmingham	1005·1	+4	SW	2	b	44	85	8	-	7	-	0	1	*	1	*
Upper Heyford	1006·3	+8	SW'S	3	z	44	97	6	3	-	-	2-3	2-3	1500	1	*
Ross-on-Wye	1005·7	+6	SW	2	b	45	85	7	5	-	-	1	1	2500	1	*
Hartland Point	1006·4	+2	WNW	5	bc	49	78	8	3	-	-	4-6	4-6	2500	1	3
Bristol	1006·7	+6	WSW	4	bc	46	85	7	8	-	-	2-3	2-3	2500	2	*
Portland Bill	1007·9	+6	W	4	bc	50	92	7	5	-	-	4-6	4-6	1500	1	4
Plymouth	1009·3	+12	W'N	3	z	47	85	6	5	-	-	Tr	Tr	2500	1	1
The Lizard	1009·9	+10	WSW	5	bc/pr	49	85	8	8	-	-	2-3	2-3	2500	1	3
Scilly (St. Mary's)	1009·7	+8	WNW	6	bc	49	75	8	5	-	-	2-3	2-3	2500	1	3
Guernsey	1009·6	+12	WNW	1	bc	50	85	7	7	1	-	2-3	4-6	2500	1	3
Pembroke	1004·3	+4	W	7	bcq	50	85	8	8	-	-	2-3	2-3	2500	1	4
Holyhead	998·9	-10	SSW	6	c	49	75	7	3	-	-	9	9	2500	1	3
Chester (Sealand)	1002·2	+2	SSW	1	z	44	85	6	5	-	-	1	1	1500	1	*
Manchester	1002·1	+2	S'W	3	b	44	85	7	5	-	-	1	1	2500	1	*
Spurn Head	1003·2	+8	SSW	3	c	47	92	6	5	-	-	10	10	1500	1	2
Catterick	1000·6	+4	SW'S	1	c	45	85	8	5	-	-	2-3	2-3	4000	1	*
Tynemouth	999·7	-4	S	3	c	47	85	6	2	-	-	7-8	7-8	2500	1	2
St. Abbs Head	997·0	0	S	3	bc	47	75	8	4	1	-	4-6	4-6	2500	0	3
Leuchars	995·3	+2	S	3	c	47	85	7	5	-	-	9	9	4000	1	*
Renfrew (Abbots I.)	993·8	-10	S'E	4	z	48	75	6	5	-	-	9+	9+	2500	1	*
Eskdalemuir	996·0	-2	S'W	5	c	44	92	7	5	-	-	10	10	800	1	
Point of Ayre	995·3	-12	SW'N	5	c	48	85	7	8	1	-	7-8	9+	1500	1	3
Tiree	986·2	+18	SSE	4	c/r	48	97	6	5	-	-	9	9	1500	1	3
Stornoway	988·9	+26	ESE	4	ir	49	75	6	6	2	-	7-8	10	2500	1	2
Dalwhinnie	991·5	+4	S	6	c	42	85	7	4	2	-	4-6	10	2500	0	*
Aberdeen	995·8	+4	S	4	c	48	85	9	5	3	-	7-8	7-8	4000	1	3
Wick	992·9	+10	SE	6	c	48	85	7	3	7	-	4-6	7-8	2500	1	3
Lerwick	997·7	+20	SSE	8	rr	45	97	5	6	2	-	4-6	10	450	1	*
Blacksod Point	999·0	+60	WNW	8	cq	49	97	7	9	-	-	10	10	<150	1	5
Malin Head	987·3	+16	W	4	rr	49	92	7	6	-	-	9	9	2500	0	3
Aldergrove	991·9	-2	SSW	4	o/r	46	92	6	8	-	-	10	10	1500	1	*
Birr Castle	1000·7	+18	WNW	3	c/pr	47	85	8	8	-	-	7-8	7-8	1500	1	*
Valentia Obsy.	1006·3	+26	NW'W	6	bc/pr	50	65	8	8	-	-	4-6	4-6	2500	1	5
Roches Point	1005·9	+14	W'N	4	rr	47	92	8	6	2	-	7-8	9+	1500	1	4

PAST 24 HOURS.

Stations	Temperature Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 9th Hrs. (36)
London (Kew)	51	48	45	Tr	3	1·8
Croydon	51	48	46	0·3	6	1·7
S. Farnborough	52	47	43	*	4	0·0
Boscombe Down	52	44	40	1	3	0·0
Calshot (Sthmtn.)	53	45	43	0·6	4	0·0
Lympne	50	47	46	Tr	4	2·8
Manston	50	48	47	—	3	3·6
Shoeburyness	51	48	45	Tr	1	2·4
Felixstowe	49	48	46	Tr	2	4·1
Gorleston	50	50	49	Tr	1	*
Mildenhall	53	49	46	0·4	5	4·0
Cranwell	49	47	44	3	4	3·5
Birmingham	52	43	40	3	2	0·3
Upper Heyford	50	43	37	1	4	*
Ross-on-Wye	54	44	35	1	1	0·0
Hartland Point	54	47	44	2	5	0·0
Bristol	54	46	41	1	3	0·0
Portland Bill	54	49	*	2	2	*
Plymouth	54	47	43	0·6	1	0·0
The Lizard	54	48	*	0·5	1	0·0
Scilly (St. Mary's)	54	49	*	1	1	0·0
Guernsey	55	50	44	1	5	0·0
Pembroke	56	49	*	6	2	0·0
Holyhead	53	47	44	7	1	0·0
Chester (Sealand)	51	43	47	1	2	0·0
Manchester	51	41	35	7	4	0·0
Spurn Head	49	46	*	1	7	4·0
Catterick	45	43	35	1	3	0·8
Tynemouth	47	46	41	4	2	*
St. Abbs Head	46	43	*	3	0·2	*
Leuchars	45	44	43	3	4	0·0
Renfrew (Abbots I.)	51	46	39	20	3	0·0
Eskdalemuir	45	43	44	11	7	0·0
Point of Ayre	57	46	*	4	0·2	0·0
Tiree	52	46	44	10	8	0·0
Stornoway	47	47	*	8	4	0·0
Dalwhinnie	40	38	37	12	4	0·0
Aberdeen	46	45	43	1	5	0·0
Wick	47	34	*	1	5	
Lerwick	46	45	*	Tr	5	
Blacksod Point	55	47	*	9	3	*
Malin Head	56	41	*	3	1	0·0
Aldergrove	54	44	38	11	0·5	0·0
Birr Castle	57	46	44	5	2	0·0
Valentia Obsy.	56	47	44	8	2	0·0
Roches Point	54	45	*	5	2	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs.	Humidity 15h. G.M.T. %	Humidity 9h. G.M.T. %	Visibility 9h.
		24 hrs. ended 9h.								Yesterday.		To-day.	
Kew	18	bmvefm	em	cmgdir	51	48	45	Tr	3	1·8	*	*	6
Croydon	217	bmwbc	cmicd	odm	51	48	46	0·3	6	1·7	*	*	
Greenwich (Royal Observatory)	149	cm	cd	dd ridc	53	47	42	Tr	3	1·8	93	92	6
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	55	42	42	3			92	95	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*									*
Camden Square	110	c	c	*	54	42	35	-	4	*	*	95	*
Kensington	80			*									*
Hampstead Observatory	450	od	or	bc	53	40	39	0·5	4		*	98	*

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 10th.

	Max.	Time.	Min.	Time.
South Kensington				
Kew Observatory	0·4	10h 9th	<0·1	0-7h 10th

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 9th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 10th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris														
Brussels														
Berlin														
Zürich														
Rome	1017·2	ENE	2	c	45						*	*	—	

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6¼ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Monday 11th December 1939.

No. 28,508

OBSERVATIONS at 13h. G.M.T. 10th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1008·0	-2	SWW	3	zo	49	85	6	1	-	1	1	2-3	1500
	Croydon ...	1008·6	-2	WSW	3	bc	51	75	6	2	3	-	2-3	2-3	2500
	S. Farnborough	1008·0	-6	SW'S	3	bc	51	75	8	1	-	-	2-3	2-3	5700
	Boscombe Down	1008·1	+4	SW	3	bc	50	65	7	1	-	-	4-6	4-6	4000
	Calshot (Soton.)	1008·6	-6	WSW	4	b	51	75	7	1	-	-	Tr	Tr	2500
	Lympne ...	1009·6	-2	WSW	2	bc	51	75	7	5	-	2	2-3	4-6	1500
	Manston ...	1008·5	-2	W'N	3	c	50	85	7	5	3	2	2-3	7-8	2500
2	Shoeburyness ...	1008·4	+4	SW	3	bc	51	75	6	-	7	2	0	4-6	-
	Felixstowe ...	1007·5	+2	W'S	3	c	49	85	6	-	7	-	0	7-8	-
	Gorleston ...	1007·0	0	SW	2	c	49	92	6	5	-	-	7-8	7-8	2500
	Mildenhall ...	1006·6	-2	SW	3	bc	51	75	6	5	-	3	Tr	2-3	5700
	Cranwell ...	1004·7	+2	SSW	3	bc	49	85	6	5	7	-	1	2-3	4000
3	Birmingham	1004·7	-2	SSW	3	c	47	85	6	5	-	-	9	9	1500
	Upper Heyford	1007·2	-2	SW	3	zo	49	75	6	7	6	-	4-6	7-8	2500
4	Ross-on-Wye ...	1005·6	-6	SW	4	c	49	85	7	5	-	-	9+	9+	2500
5	Hartland Point	1007·0	-4	NW	5	c/pr	49	85	7	5	2	-	9	10	1500
	Bristol ...	1007·0	-6	SW	4	ir	48	85	7	5	7	-	7-8	9	1500
	Portland Bill ...	1008·8	+12	SW	4	c	51	92	8	5	-	-	7-8	7-8	4000
	Plymouth ...	1009·4	-6	W'N	4	c/pr	49	92	6	8	7	-	4-6	7-8	1500
	The Lizard ...	1011·1	-4	W	6	c	50	85	7	8	2	-	7-8	9+	2500
	Scilly (St. Mary's)	1012·2	+14	NW'W	6	c/pr	50	85	7	8	7	3	4-6	7-8	1500
	Guernsey ...	1011·0	+2	W	1	bc	51	75	7	1	3	-	2-3	2-3	2500
6	Pembroke ...	1005·4	+4	WNW	7	c/r	50	92	7	8	-	-	9+	9+	1500
7	Holyhead ...	999·8	+6	WSW	6	pr	50	75	7	9	2	-	7-8	10	1500
	Chester (Sealand)	1001·7	-4	SW	4	c/pr	53	75	7	8	3	-	7-8	9	2500
8	Manchester ...	1002·0	-8	SSW	4	iro	49	85	6	8	7	-	7-8	10	1500
10	Spurn Head ...	1004·3	+4	S	4	bc	48	85	6	-	-	3	0	2-3	-
	Catterick ...	1009·7	*	SSW	4	zo	42	85	6	6	2	-	4-6	10	1500
	Tynemouth ...	1000·6	+4	S	3	c	48	75	6	8	-	-	7-8	7-8	2500
11	St. Abbs Head	996·9	0	S	5	c	46	85	7	5	6	-	7-8	9+	1500
	Leuchars ...	997·0	+10	SE	3	dodo	46	85	6	-	2	-	10	10	1500
12	Renfrew (Abbots I.)	994·9	+14	SE	2	ddo	48	97	5	5	-	-	10	10	1500
	Eskdalemuir ...	996·0	+4	S'W	5	dd	45	97	5	6	-	-	10	10	220
	Point of Ayre ...	1004·8	-74	SW'W	6	rr	45	92	7	6	2	-	4-6	10	2500
13A	Tiree ...	989·5	+32	-	0	c	49	97	7	5	-	-	7-8	7-8	1500
13B	Stornoway ...	996·8	+40	NNW	3	roro	46	92	7	5	7	-	7-8	9+	2500
15	Dalwhinnie ...	996·7	+22	S	3	c	43	85	6	4	6	1	4-6	7-8	1500
	Aberdeen ...	998·8	+16	SSE	3	c	48	85	6	5	3	-	9	9	4000
	Wick ...	997·5	+22	SE	6	bc	49	85	7	5	6	1	2-3	2-3	2500
16	Lerwick...	1001·0	+14	SSE	8	rr	46	92	6	6	2	-	4-6	10	450
17	Blacksod Point..	1007·0	+34	NW	8	PR	49	75	7	6	-	-	10	10	<150
18	Malin Head ...	994·1	+32	W'N	5	roro	50	92	5	6	-	-	9+	9+	800
	Aldergrove ...	994·8	+20	W'S	3	o/r	47	97	6	5	-	-	10	10	800
19	Birr Castle ...	1005·5	+20	NNW	3	c	48	75	7	9	2	-	7-8	10	1500
20	Valentia Obsy. †	1014·6	+24	NW	6	c	50	65	8	2	6	-	4-6	7-8	2500
	Roches Point ...	1009·6	+16	NW	5	bc	49	85	8	3	4	3	2-3	4-6	1500

OBSERVATIONS at 18h. G.M.T. 10th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1008·4	+4	SSW	3	zo	46	85	6	5	-	-	4-6	4-6	2500		
Croydon	1008·3	+2	SW	2	zo	44	92	6	5	-	-	2-3	2-3	2500		*
S. Farnborough	1008·5	+6	SSW	3	zo	46	85	5	5	-	-	9+	9+	4000		*
Boscombe Down	1008·3	+10	WSW	3	c/r	46	97	6	5	-	-	9	9	2500		*
Calshot (Soton.)	1008·8	+2	W'S	3	zo	48	85	6	5	3	-	9+	9+	2500	1	2
Lympne	1010·9	+12	WSW	2	b	40	97	6	-	-	3	0	Tr	-	2	§
Manston	1009·5	+8	SW	2	zo	43	85	6	-	-	-	0	0	-	1	*
Shoeburyness	1009·1	+10	SW'S	1	b	44	92	6	-	-	-	0	0	-	1	
Felixstowe	1008·4	+10	SW	1	zo	43	97	5	5	-	-	2-3	2-3	7200	1	†
Gorleston	1008·4	+12	S	2	b	46	85	6	-	-	-	0	0	-	1	2
Mildenhall	1007·2	+6	S	3	bc	45	85	7	5	-	-	4-6	4-6	2500	1	*
Cranwell	1006·0	+10	SSW	3	zo	46	92	6	5	-	-	10	10	2500	0	*
Birmingham	1005·9	+4	SSW	2	bc	46	85	7	5	7	-	2-3	2-3	1500	1	*
Upper Heyford	1007·6	+6	SSW	3	c	46	85	7	5	-	-	10	10	4000	1	*
Ross-on-Wye	1006·7	+8	SW	3	c	47	85	8	5	-	-	10	10	2500	1	*
Hartland Point	1008·4	+8	WNW	6	c/r	49	85	7	9	2	-	7-8	10	1500	1	4
Bristol	1008·0	+10	W'S	3	c	47	92	7	5	7	-	7-8	10	4000	1	*
Portland Bill	1009·0	-6	W	4	e	50	92	7	5	-	-	10	10	4000	1	4
Plymouth	1010·6	+10	NW'W	4	pr	49	85	6	9	7	-	9+	10	1500	1	4
The Lizard	1012·3	+8	W'N	6	c/pr	49	85	8	8	2	-	7-8	9+	2500	1	3
Scilly (St. Mary's)	1013·3	+16	NW'W	7	c	50	75	7	8	4	-	4-6	7-8	1500	1	4
Guernsey	1011·1	+8	NW	1	c/pr	49	85	8	8	-	-	9	9	1500	1	3
Pembroke	1007·6	+10	NW	6	iro	50	85	7	8	-	-	10	10	1500	1	3
Holyhead	1001·2	+16	W'N	7	roro	50	85	6	6	2	-	7-8	10	800	1	4
Chester (Sealand)	1002·4	+2	SW	2	Iro	46	85	6	5	-	-	10	10	1500	1	*
Manchester	1002·5	+4	S	4	pr	47	85	6	8	-	-	9+	9+	1500	1	*
Spurn Head	1005·5	+6	SSE	4	c	45	92	6	5	2	-	9+	10	2500	0	2
Catterick	1002·4	+14	SE'S	3	zo	46	92	6	5	-	-	10	10	4000	1	*
Tynemouth	1003·1	+18	S	3	bc	47	85	6	8	-	-	4-6	4-6	2500	1	2
St. Abbs Head	1001·3	+28	SSE	4	bc	45	85	6	4	4	-	4-6	4-6	1500	0	3
Leuchars	1001·6	+36	SE	3	zo	47	85	6	5	2	-	7-8	10	5700	1	
Renfrew (Abbots I.)	1000·8	+42	NE'E	2	roro	47	97	5	-	2	-	10	10	2500	1	*
Eskdalemuir	999·5	+24	SSE	3	c/d	45	85	7	6	-	-	9	9	450	1	*
Point of Ayre	998·2	+20	WNW	4	dd	50	97	6	-	2	-	10	10	1500	1	3
Tiree	1003·5	+60	N	4	dd	47	97	7	-	2	-	9	9	1500	1	3
Stornoway	1002·9	+40	NW	4	c/pr	47	92	7	5	7	-	7-8	10	2500	1	2
Dalwhinnie	*	+36	-	0	bc	41	92	6	4	4	-	2-3	4-6	2500	0	
Aberdeen	1003·7	+38	SSE	3	iro	48	85	6	6	2	-	9	10	800	1	3
Wick	1002·7	+30	SSE	4	bc	47	92	7	5	4	-	2-3	2-3	2500	1	2
Lerwick	1007·1	+28	SSE	6	c	47	97	7	8	7	-	4-6	9+	800	1	*
Blacksod Point	1013·1	+30	NW	8	qbc	47	85	8	9	-	-	4-6	4-6	800	1	5
Malin Head	1002·3	+60	N	6	*r	48	92	6	6	-	-	9+	9+	800	1	5
Aldergrove	1000·2	+36	WNW	5	roro	47	97	6	5	-	-	10	10	450	2	*
Birr Castle	1009·5	+26	NNW	3	c	47	85	8	5	-	-	7-8	7-8	2500	1	
Valentia Obsy. †	1017·3	+20	NW	6	c	50	65	8	8	-	-	9	9	2500	1	4
Roches Point	1011·8	+10	NWN	6	bc/pr	49	85	8	3	4	-	4-6	4-6	1500	1	3

PAST 24 HOURS.

Stations	Weather 7h.—18h. 10th (37)	Weather 13h.—18h. 10th (38)	Weather 18h. 10th to 1h. 11th (39)	Weather 1h.—7h. 11th (40)
London (Kew)	bcbmow,	bbc,ev	becm,bm	bbcrgxcm
Croydon	cbcbmo	bczobmo	bebmzw	becm
S. Farnborough	bcb	bcbbcmo	bcmzwc	cmzw
Boscombe Down	b	bcc cirom	cm	cbem
Calshot (Soton.)	bcbmob	bbccmo	bebwm	ebewmom
Lympne	cirocbc	bcbmo	bmwx	bmxbcc
Manston	ororoc	cbcb	bmw	bm bcm
Shoeburyness	vcmobczo	bczobzo	bz	bcbxfefo
Felixstowe	cmobcmo	cmobmow	bmw	bmwbfx
Gorleston	c	cbcbzo	bz	bbczw
Mildenhall	omobcmo	bcmobbc	bmzw	bm,offe
Cranwell	bc	bcmobcmo	cm, bmw	cmoffe
Birmingham	bc	cbc	cpro	com
Upper Heyford	bmobbc	cmoc	cbcmcm	bem
Ross-on-Wye	bbcc	c	roororoc	c
Hartland Point	bccpc	circ	ciroc	crr
Bristol	bcproc	cirpo ido	crobcro	bcrocro
Portland Bill	bcc	c	bcc	e
Plymouth	bmocprmo	cprmo	mcprrr	cprom
The Lizard	bcprc	cprc	rrc	eproc
Scilly (St. Mary's)	bccp	cbcc	cpo cbc	bcpoc
Guernsey	bcpro	cPpr	bcciR	iRpr
Pembroke	bceir	cprq	crrq	ciroq
Holyhead	Irroc	rrmoroor	rororr	rrdodoo
Chester (Sealand)	cmobccpr	cbcciro	cmirorid	cmrrido
Manchester	b,cmo,prdro	cromodro	crorомdo	bcedm
Spurn Head	cbc	c	o	bbew
Catterick	cproc	c	bmcm	cm
Tynemouth	c	cbc	bce	co
St. Abbs Head	bcc	mocbc	bcmc	com
Leuchars	codo dok	cmo	cm	cmo
Renfrew (Abbots I.)	cmododoc	cmododoro	cmroirom	cmirocff
Eskdalemuir	cddmoc	cdodoido	irorrc	cmo
Point of Ayre	ro rr	dd	crrR	DDo
Tiree	c	ciro	c	c
Stornoway	crr	croro	c	cpro
Dalwhinnie	cir	c	*	cir
Aberdeen	czo	ciro	ciroc	cz
Wick	cbc	bccbc	rrcm	cmo
Lerwick	crrq	crrir	cpro	cpro
Blacksod Point	prcq	prcq		
Malin Head	oro rcirrorc	cprocirc	cproc	cproc
Aldergrove	Iroroir oiro	cmoroo	roroiroc	cirombc
Birr Castle	c	cr prc	c	c
Valentia Obsy. †	bccproqc	cproqc	cprqprobc	bcprobcc
Roches Point	prbc	probc	bcbbc	cbc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/so, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
so/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. ro, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
Solar halo. lunar halo. Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.

An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.

"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.

"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

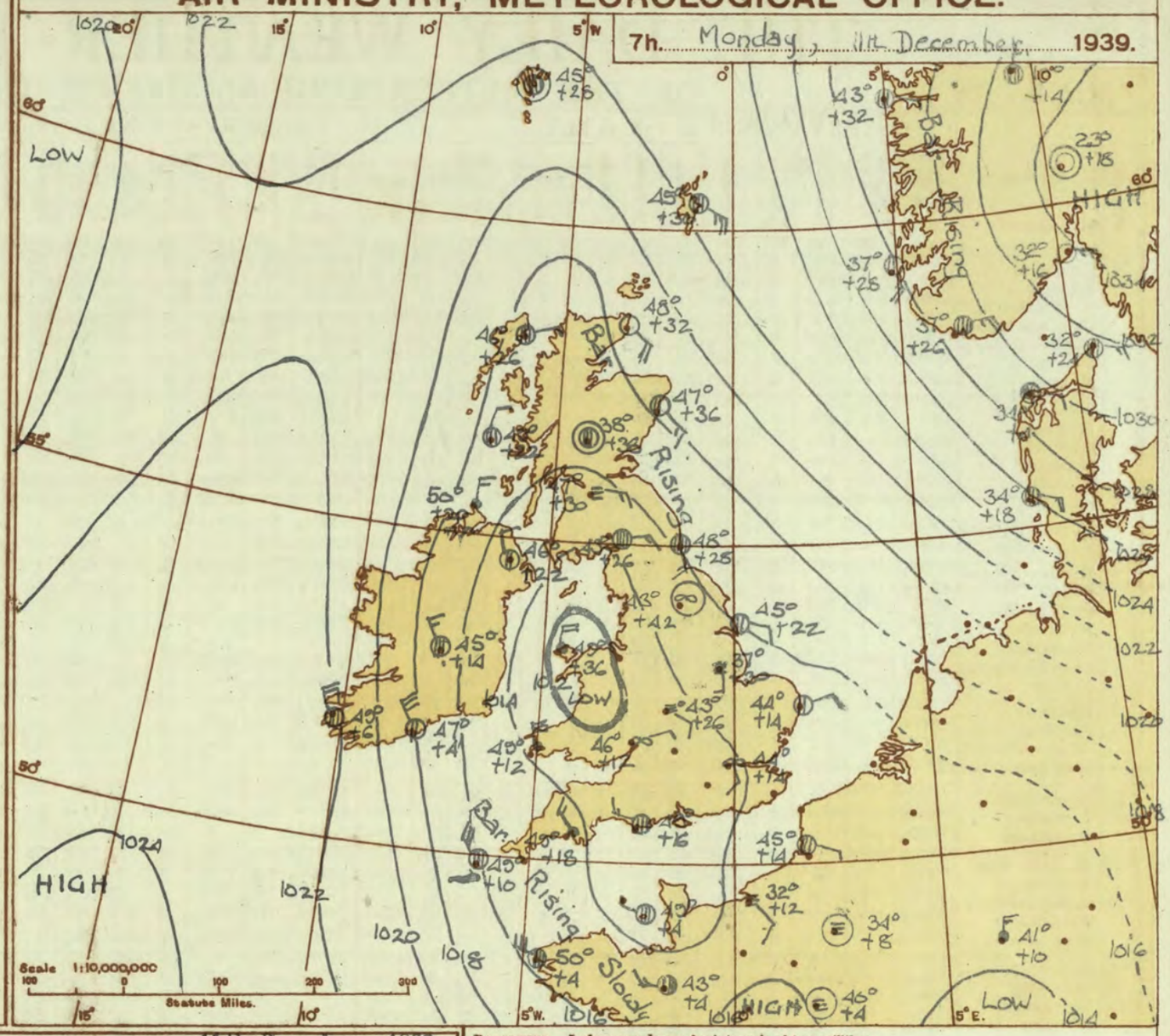
Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
- .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.



Districts.	Forecasts for the 24 hours commencing 12 noon, G.M.T. 11th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ...	Light eastsoutheast winds, backing eastnortheast and freshening; dull with fog locally today in Eastern England and local drizzle tomorrow, becoming colder later.
4 W. Midlands ... 5 S.W. England 6 South Wales ... 7 North Wales ...	Light variable winds becoming moderate, northeasterly; local rain or drizzle at first, cloudy later; average temperature.
8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Light to moderate northeasterly winds; cloudy; average temperature.
13 A. W. Scotld. B.N.W.Scotland. 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Light easterly winds; cloudy; average temperature.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Light to moderate northerly winds, veering northeast; cloudy but with bright intervals; average temperature.

Barometer. Isobars are drawn for intervals of two millibars.
Wind, Weather Symbols. For explanation see opposite page.
Sea Disturbance. ~~ Rough. ≈≈ High.
Barometric Change from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

A belt of high pressure associated with an intense anticyclone over the Baltic Sea will build up over the British Isles in the rear of the depression over North Wales which is dying out. An easterly type of weather will develop and easterly winds over the North Sea may freshen to strong later.

FURTHER OUTLOOK.

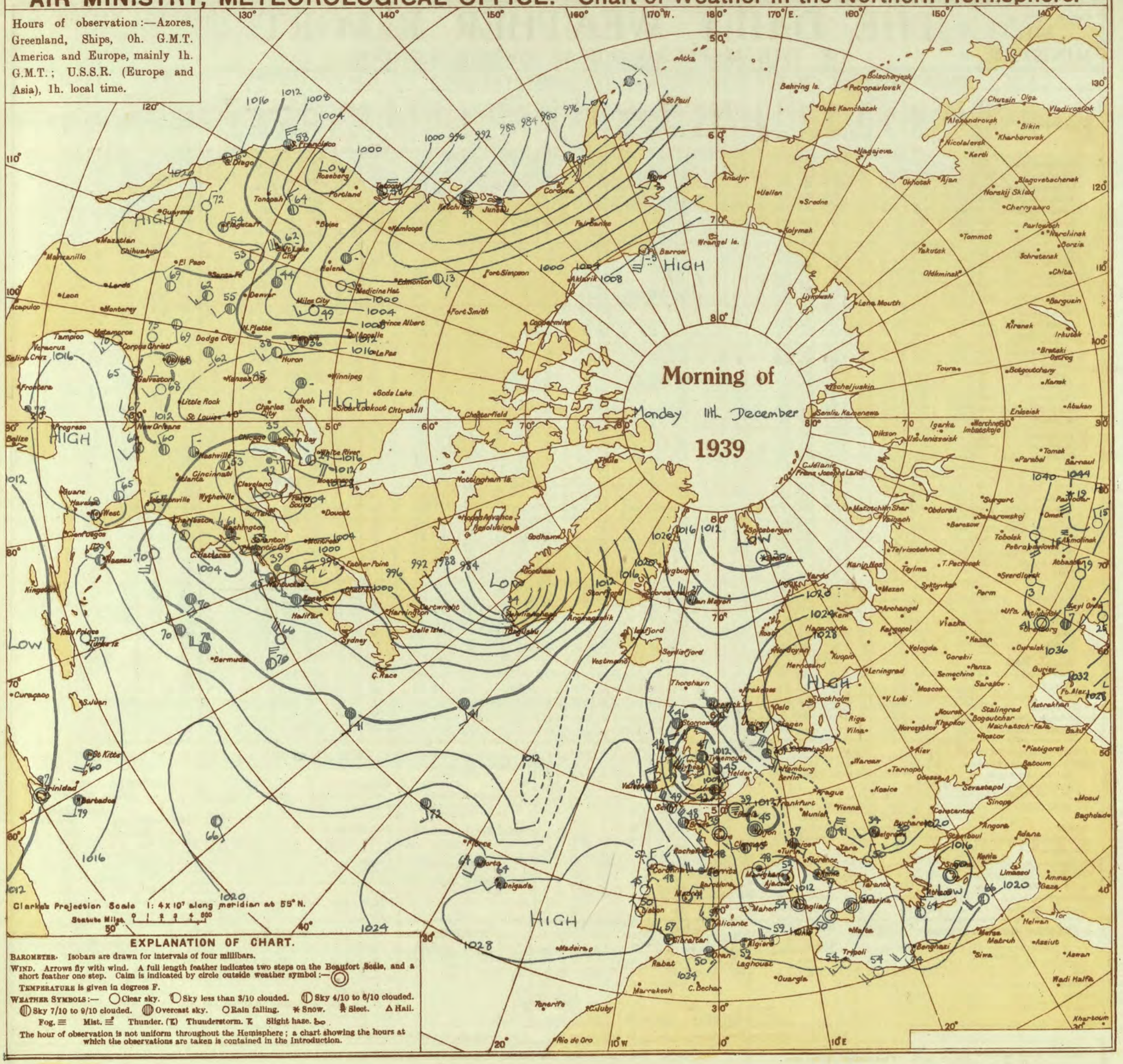
An easterly type of weather for a period except probably in extreme Western Ireland.

Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Monday 11th December 1939.

No. 28,508

OBSERVATIONS at 1 hr. G.M.T. 11th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1011·1	+14	S'E	2	z_0	42	97	6	5	-	-	2-3	2-3	4000
	S. Farnborough	226	1010·4	+10	S'E	2	z_0	41	97	6	5	-	-	9+	9+	4000
	Boscombe Down	417	1010·0	+6	SW'W	2	z_0	45	97	6	5	-	-	4-6	4-6	2500
	Calshot (Sthmtn.)	8	1010·4	+6	WSW	2	z_0	47	85	6	5	3	-	4-6	9	2500
	Lympne ...	346	1012·3	+10	SW'S	1	b	42	92	6	-	4	-	0	1	-
	Manston ...	154	1011·7	+8	SW'S	1	z_0	48	86	6	-	-	-	0	0	-
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1010·9	+14	S'E	2	z_0	48	92	6	-	-	-	0	0	-
	Gorleston ...	5	1011·9	+20	SSW	1	b	41	85	6	-	-	-	0	0	-
	Mildenhall ...	19	1010·8	+20	SE'S	2	z_0	39	97	5	-	-	-	0	0	-
	Cranwell ...	240	1009·3	+14	S	2	≡	39	97	4	5	-	-	7-8	7-8	4000
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1009·8	+10	SSW	1	b	42	97	7	5	-	-	1	1	2500
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1000·6	+8	NW	4	c	47	97	7	5	2	-	7-8	9	1500
	Bristol ...	209	1009·4	+6	W	3	i_0	46	92	7	5	1	-	2-3	4-6	1500
	Portland Bill ...	32	1010·5	+6	WNW	3	c	49	92	8	5	-	-	10	10	4000
	Plymouth ...	82	1012·3	+8	WNW	2	i_0	48	92	6	5	2	-	9	10	1500
	The Lizard ...	240	1012·8	+4	W	6	c	48	92	7	8	2	-	9	10	1500
	Scilly (St. Mary's)	163	1015·1	+8	NW	6	bc	49	75	8	8	-	-	4-6	4-6	2500
	Guernsey ...	175	1012·3	+2	NW	1	iR	48	92	7	8	-	-	7-8	7-8	800
6	Pembroke ...	142	1009·7	+4	NNW	7	c/r	49	92	7	8	-	-	9+	9+	1500
7	Holyhead ...	26	1009·4	+22	NW	7	r	49	92	6	-	2	-	10	10	800
	Chester (Sealand)	16	1006·1	+16	SSE	2	r_0	46	92	6	5	2	-	7-8	10	2500
8	Manchester ...	70	1007·0	+22	ESE	2	bc	46	97	7	5	-	-	2-3	2-3	2500
10	Spurn Head ...	29	1010·2	+20	SSE	3	o	45	92	6	5	-	-	10	10	2500
	Catterick ...	175	1009·1	+22	SE	1	z_0	43	97	6	5	-	-	10	10	2500
	Tynemouth ...	108	1009·4	+28	S	3	c	47	92	6	2	-	-	7-8	7-8	2500
11	St. Abbs Head	280	1008·7	+36	SE	3	c	46	92	7	5	2	-	7-8	10	2500
	Leuchars ...	36	1010·3	+38	E	1	z_0	46	97	6	5	-	-	10	10	4000
12	Renfrew (Abbots I.)	19	1009·6	+34	NNE	2	i_0	47	92	5	5	-	-	7-8	7-8	1500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1006·2	+38	E'N	1	RR	49	97	6	-	2	-	10	10	800
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1011·5	+30	NW	3	c	46	92	7	5	1	-	4-6	10	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1011·8	+36	SSE	4	c	48	92	6	5	2	-	7-8	10	1500
16	Lerwick ...	156	1015·8	+36	SSE	6	c	47	92	7	8	7	-	7-8	10	800
17	Blacksod Point	18														
18	Malin Head ...	84	1011·4	+22	N	3	c	49	92	7	9	-	-	9	9	4000
	Aldergrove ...	268	1010·0	+32	NNW	4	c/r	48	86	7	6	2	-	9+	10	1500
19	Birr Castle ...	173	1014·5	+16	NNW	5	c	47	88	8	5	1	-	7-8	10	2500
20	Valentia Obsy.	30	1020·8	+14	N'W	4	bc/pr	47	75	8	8	-	-	4-6	4-6	2500
	Roches Point	22	1016·1	+36	NNW	6	bc	47	85	8	5	-	-	2-3	2-3	2500

OBSERVATIONS at 7 hr. G.M.T. 11th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
1	London (Kew)	1014·2	+20	SSW	1	z_0	44	97	5	5	-	-	9+	9+	2500	1	*
	Croydon ...	1013·8	+14	SSE	2	z_0	44	97	5	5	-	-	9+	9+	4000	1	*
	S. Farnborough	1013·7	+20	E'N	1	z_0	44	92	6	5	-	-	10	10	4000	1	*
	Boscombe Down	1013·3	+18	SE'E	2	z_0	42	97	5	5	-	-	4-6	4-6	2500	1	*
	Calshot (Sthmtn.)	1013·1	+14	-	0	z_0	47	92	6	5	3	-	7-8	10	2500	1	0
	Lympne ...	1014·8	+18	NNW	1	c	48	92	7	8	-	-	9+	9+	4000	1	§2
	Manston ...	1014·8	+14	-	0	fg	42	97	5	5	3	-	4-6	4-6	1500	1	*
2	Shoeburyness ...	1014·6	+20	NW	1	bf	34	97	2	-	-	-	0	0	-	1	*
	Felixstowe ...	1014·1	+18	-	0	bf+	35	97	2	5	-	-	1	1	4000	1	1
	Gorleston ...	1014·8	+14	ENE	2	bc	44	92	6	5	-	-	4-6	4-6	2500	1	1
	Mildenhall ...	1014·7	+22	E'S	2	dd	41	97	2	-	-	-	10	10	4150	1	*
	Cranwell ...	1014·4	+30	S	1	f	37	97	0	-	-	-	10	10	4150	0	*
3	Birmingham ...	1013·3	+26	SE	2	m	48	97	4	5	-	-	10	10	800	1	*
	Upper Heyford	1013·7	+22	-	0	z_0	48	97	6	5	-	-	10	10	800	1	*
4	Ross-on-Wye	1012·1	+12	ENE	1	z_0	46	97	6	5	-	-	9+	9+	1500	1	*
5	Hartland Point	1013·3	+16	NW	5	c	49	85	8	5	2	-	7-8	9+	1500	1	4
	Bristol ...	1012·3	+18	-	0	i_0	47	92	6	5	7	-	4-6	9+	800	1	*
	Portland Bill ...	1013·3	+16	WNW	3	c	49	92	8	5	-	-	7-8	7-8	4000	1	3
	Plymouth ...	1014·2	+18	NW'N	3	pr	49	97	6	9	-	-	10	10	1500	1	2
	The Lizard ...	1015·2	+6	W	5	c	48	92	7	8	2	-	7-8	10	1500	1	3
	Scilly (St. Mary's)	1016·3	+10	NW'N	8	c	49	75	7	8	-	-	10	10	1500	1	4
	Guernsey ...	1016·0	+4	WNW	1	c	49	85	7	8	-	-	7-8	7-8	1500	1	3
6	Pembroke ...	1013·2	+12	NNW	6	c	49	92	7	8	-	-	9+	9+	1500	1	3
7	Holyhead ...	1011·4	+36	N	4	dd	49	97	5	5	-	-	10	10	450	1	2
	Chester (Sealand)	1012·5	+38	E'N	2	z_0	46	92	5	5	-	-	10	10	1500	1	*
8	Manchester ...	1013·8	+34	NNE	8	c	46	92	6	5	-	-	9	9	1500	1	*
10	Spurn Head ...	1015·2	+22	ESE	2	bc	45	97	6	-	2	-	0	2-3	-	1	1
	Catterick ...	1015·4	+42	-	0	z_0	43	97	6	5	-	-	10	10	2500	1	*
	Tynemouth ...	1016·8	+28	SSE	3	o	48	92	6	5	-	-	10	10	1500	1	2
11	St. Abbs Head	1016·4	+28	SE	3	o	47	92	6	5	-	-	10	10	2500	0	2
	Leuchars ...	1017·4	+36	E	3	z_0	47	97	6	5	-	-	10	10	4000	1	*
12	Renfrew (Abbots I.)	1015·9	+30	E	3	op	47	92	3	5	-	-	10	10	1500	1	*
	Eskdalemuir ...	1015·8	+26	E'N	3	c	48	92	5	5	-	-	10	10	800	1	*
	Point of Ayre ...	1013·6	+32	ENE	2	o	47	97	6	-	2	-	10	10	1500	1	2
13A	Tiree	1016·0	+22	N'E	2	a	49	85	7	5	-	-	7-8	7-8	2500	0	3
13B	Stornoway ...	1016·9	+26	ENE	1	c/pr	46	92	7	5	7	-	7-8	7-8	2500	1	1
15	Dalwhinnie ...	*	+38	-	0	c	38	97	6	4	2	-	4-6	10	2500	1	*
	Aberdeen ...	1019·3	+36	SE'S	3	bc	47	85	6	5	-	-	4-6	4-6	2500	1	2
	Wick ...	1018·9	+32	SE	4	a	48	92	6	5	7	-	7-8	9+	1500	1	3
16	Lerwick ...	1022·6	+30	SE	5	a	45	92	8	8	7	-	7-8	10	800	1	*
17	Blacksod Point																
18	Malin Head ...	1016·1	+20	N	3	pr	50	85	7	6	-	-	7-8	7-8	4000	1	5
	Aldergrove ...	1014·7	+22	NNW	2	bc	46	92	7	8	-	-	4-6	4-6	2500	1	*
19	Birr Castle ...	1017·8	+14	NNW	3	c	45	92	8	5	-	-	7-8	7-8	2500	1	*
20	Valentia Obsy.	1022·3	+6	NNW	4	c	49	75	6	8	-	-	7-8	7-8	2500	1	4
	Roches Point	1018·2	+4	NNW	6	bc	47	85	8	5	-	-	4-6	4-6	2500	1	4

PAST 24 HOURS.

District	Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F. (32)	Temperature Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 10th Hrs. (36)
1	London (Kew)	50	39	28	-	Tr	4·9
	Croydon ...	52	40	39	-	-	4·6
	S. Farnborough	51	41	35	0·1	Tr	5·1
	Boscombe Down	50	40	35	0·1	-	4·9
	Calshot (Sthmtn.)	53	45	42	-	-	6·8
	Lympne ...	51	39	29	Tr	-	3·5
	Manston ...	51	39	29	0·3	0·1	2·8
2	Shoeburyness ...	52	32	30	-	-	3·9
	Felixstowe ...	51	35	31	Tr	-	1·2
	Gorleston ...	51	40	39	2	-	*
	Mildenhall ...	52	38	33	-	1	3·9
	Cranwell ...	50	37	33	-	Tr	5·0
3	Birmingham ...	48	48	41	*	0·2	1·8
	Upper Heyford	51	40	28	0·1	-	*
4	Ross-on-Wye	50	44	40	-	2	1·9
5	Hartland Point	49	46	45	2	3	0·0
	Bristol ...	49	46	41	0·1	0·3	1·3
	Portland Bill ...	53	48	*	0·2	-	*
	Plymouth ...	51	47	44	4	8	1·1
	The Lizard ...	51	46	*	0·5	1	1·3
	Scilly (St. Mary's)	51	48	*	1	0·6	2·4
	Guernsey ...	53	45	42	4	11	5·4
6	Pembroke ...	51	47	*	1	4	0·0
7	Holyhead ...	50	48	47	4	5	0·0
	Chester (Sealand)	(53)	46	43	Tr	3	2·4
8	Manchester ...	51	45	39	0·1	1	0·6
10	Spurn Head ...	48	48	*	-	Tr	2·9
	Catterick ...	50	41	35	-	-	0·5
	Tynemouth ...	48	47	44	-	-	*
11	St. Abbs Head	47	44	*	-	-	*
	Leuchars ...	48	44	42	0·2	-	0·0
12	Renfrew (Abbots I.)	50	45	41	2	0·2	0·0
	Eskdalemuir ...	45	42	42	4	1	0·0
	Point of Ayre ...	51	46	*	5	15	0·7
13A	Tiree	50	47	45	2	-	0·0
13B	Stornoway ...	49	39	*	4	Tr	0·0
15	Dalwhinnie ...	44	37	35	0·5	0·5	0·6
	Aberdeen ...	49	47	43	0·4	0·1	0·5
	Wick ...	49	47	*	-	1	*
16	Lerwick ...	48	45	*	2	Tr	*
17	Blacksod Point			*	4		*
18	Malin Head ...	51	46	*	5	5	0·0
	Aldergrove ...	49	45	38	3	0·4	0·0
19	Birr Castle ...	48	45	44	0·6	Tr	0·0
20	Valentia Obsy.	51	45	41	1	2	1·3
	Roches Point	50	46	*	1	-	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon (24 hrs. ended 9h.)	Weather Night (24 hrs. ended 9h.)	Temperature Day Max. °F.	Temperature Night Min. °F.	Temperature Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
KEW ...	18	bcbmw	bbecv	bcemw	50	39	28	-	Tr	4·9	*	*	
CROYDON ...	217	cbcbm	bcz bm	bcbmw	52	40	39	-	-	4·6	*	*	
GREENWICH (Royal Observatory) ...	149	bcb	bcb	bwcf	51	37	28	-	Tr	5·0	77	96	
CITY (Bunhill Row) ...	—	*	*	*	*	*	*	*	*		*	*	*
WESTMINSTER (St. James' Park) ...	27	*	*	*	52	42	36	-			78	91	*
REGENTS PK. (Botanic Gardens)‡ ...	168	*	*	*	51	41	30	-	-		72	92	*
CAMDEN SQUARE ...	110	bc	c	*	50	41	31	-	-	*	*	95	*
KENSINGTON ...	80	bc	bc	*	51	39	29	-	Tr		84	94	*
HAMPSTEAD OBSERVATORY ...	450	bc	bc	bcof	49	41	37	-	-		*	99	*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 11th

SOUTH KENSINGTON. Max.	Time.	Min.	Time.

KEW OBSERVATORY. Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 10th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 11th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
PARIS ...	1011·3	-	0	b	48	1015·3	-	0	bcF	34	55	*	4	1
BRUSSELS ...														
BERLIN ...														
ZÜRICH ...	1016·7	E	1	b	45	1008·7	WSW	8	c	52	*	*	-	
ROME ...														

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 „
2 Fog	550 „
3 Moderate fog	1,100 „
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ „
6 Moderate „	6½ „
7 Good „	12½ „
8 Very good „	31 „
9 Excellent „	beyond 31m.

COLUMN 30 — Code for State of Sea.

0 Calm.	5 Very rough.
1 Smooth.	6 High.
2 Slight.	7 Very high.
3 Moderate.	8 Precipitous.
4 Rough.	9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

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AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Tuesday 12th December, 1939.

No. 28,509

OBSERVATIONS at 13h. G.M.T. 11th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Med. (10)	High (11)	Amount Low 0–10 (12)	Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1018·5	+10	E'N	1	cf+	49	85	2	5	-	-	9+	9+	2500
	Croydon	1018·3	+14	ENE	1	cf+	48	85	3	5	-	-	9+	9+	4000
	S. Farnborough	1018·1	+26	ENE	1	zo	48	85	5	5	-	-	9	9	4000
	Boscombe Down	1017·5	+14	E	2	zo	49	85	6	8	3	-	4-6	9	2500
	Calshot (Soton.)	1017·4	+14	E	3	zo	50	92	6	8	-	-	9+	9+	2500
	Lympne ...	1018·2	+10	NE	1	bc	47	85	7	1	9	1	2-3	4-6	1500
	Manston ...	1018·3	+10	N'W	1	f	46	97	2	-	-	-	10	10	<150
2	Shoeburyness ...	1018·7	+8	NNE	2	f	40	97	2	-	-	-	10	10	<150
	Felixstowe ...	1018·2	+12	N'W	2	m/f	49	92	4	5	-	-	1	1	5700
	Gorleston ...	1019·2	+12	N'E	2	c	48	92	6	5	-	-	9+	9+	2500
	Mildenhall ...	1019·3	+14	-	0	F-	42	97	1	-	-	-	10	10	<150
	Cranwell ...	1019·9	+18	NE'E	1	cf-	43	97	3	5	-	-	10	10	<150
3	Birmingham	1019·1	+20	E	3	of	45	92	3	5	-	-	10	10	450
	Upper Heyford	1018·7	+18	ENE	1	m	46	92	4	5	-	-	9+	9+	2500
4	Ross-on-Wye ...	1018·2	+24	E	3	c	47	85	6	5	-	-	9+	9+	1500
5	Hartland Point	1016·6	+10	NW	4	c/r	49	97	8	6	2	-	7-8	10	800
	Bristol	1017·8	+28	ESE	2	zo	48	92	6	5	3	-	9	10	1500
	Portland Bill ...	1016·8	+10	ENE	3	c	49	92	8	5	2	-	7-8	10	2500
	Plymouth ...	1017·4	+14	NW	2	c	51	85	7	9	3	-	4-6	7-8	2500
	The Lizard ...	1018·7	+10	NNW	4	c	49	92	7	8	2	-	7-8	9+	1500
	Scilly (St.Mary's)	1019·6	+8	NW'N	5	c	49	85	8	8	2	-	7-8	10	2500
	Guernsey ...	1016·3	+14	NW'W	1	c/pr	50	92	7	8	2	-	7-8	9	1500
6	Pembroke ...	1016·7	+6	N	5	c/r	50	92	7	8	7	-	7-8	9	1500
7	Holyhead ...	1017·4	+20	E'N	6	c	49	85	6	5	-	-	9+	9+	4000
	Chester (Sealand)	1019·7	+30	E	2	zo	47	92	5	5	-	-	10	10	2500
8	Manchester ...	1020·0	+30	NE	3	cf	44	92	3	5	-	-	9	9	2500
10	Spurn Head ...	1020·4	+10	E	3	c	48	85	6	5	-	-	7-8	7-8	2500
	Catterick ...	1021·5	+18	-	0	zo	47	85	6	5	-	-	9	9	2500
	Tynemouth ...	1023·1	+20	ESE	3	c	48	85	8	8	-	-	7-8	7-8	2500
11	St. Abbs Head	1023·6	+24	SE	3	c	45	92	7	5	6	-	4-6	7-8	2500
	Leuchars ...	1025·6	+14	E	2	c	48	85	7	8	-	-	9	9	1500
12	Renfrew (Abbots I.)	1022·3	+26	E'S	2	zo	48	85	5	5	-	-	9+	9+	2500
	Eskdalemuir ...	1022·0	+24	NE'E	2	c	45	92	6	5	-	-	9+	9+	1500
	Point of Ayre ...	1020·2	+18	SE	3	c	49	85	7	5	6	-	4-6	9+	1500
13A	Tiree	1020·8	+6	E'S	2	c	49	85	8	5	3	-	4-6	7-8	4000
13B	Stornoway ...	1022·1	+14	ESE	3	c	49	85	8	5	7	-	7-8	9+	4000
15	Dalwhinnie ...	1023·5	+28	-	0	ir	43	85	6	5	2	-	4-6	9+	2500
	Aberdeen ...	1025·2	+26	SE'E	3	c/r	47	92	6	6	2	-	7-8	10	1500
	Wick	1024·6	+22	SE	5	c	48	92	7	5	7	-	7-8	9+	1500
16	Lerwick... ...	1028·0	+10	SSE	5	c/d	45	85	7	8	2	-	7-8	10	800
17	Blacksod Point..	1022·8	+4	N'W	4	c	49	85	8	3	6	-	2-3	7-8	800
18	Malin Head ...	1020·2	+18	E	2	zo	49	85	6	8	9	-	4-6	7-8	1500
	Aldergrove ...	1020·3	+22	ENE	2	zo	47	85	6	5	3	-	2-3	4-6	2500
19	Birr Castle ...	1020·7	+6	NNW	1	c	48	85	8	5	-	-	9+	9+	2500
20	Valentia Obsy. †	1024·2	+6	N	4	c/pr	49	75	8	8	-	-	9+	9+	2500
	Roches Point ...	1020·9	+2	N	5	bc	50	85	8	5	4	-	4-6	4-6	2500

OBSERVATIONS at 18h. G.M.T. 11th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Med. (24)	High (25)	Amount Low 0–10 (26)	Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1021·8	+22	NNE	3	m	43	92	4	5	-	-	10	10	2500	1	*
Croydon	1021·4	+22	NNE	1	F+	43	97	1	-	-	-	10	10	<150	1	*
S. Farnborough	1021·1	+16	NE	2	bcf	46	92	3	5	3	-	4-6	4-6	4000	1	*
Boscombe Down	1020·7	+16	NE'E	2	z	47	85	5	5	-	-	9+	9+	4000	1	*
Calshot (Soton.)	1020·4	+14	N	1	z	48	92	5	5	-	-	10	10	1500	1	1
Lympne	1020·5	+14	N'E	3	ido	44	97	5	5	-	-	10	10	450	1	§1
Manston	1020·9	+16	E	3	dd	45	97	5	5	-	-	10	10	800	1	*
Shoeburyness	1021·1	+12	-	0	roro	43	97	6	2	-	-	10	10	450	1	*
Felixstowe	1020·9	+14	NE	3	zo	45	92	5	5	-	-	10	10	1500	1	2
Gorleston	1022·8	+30	E'N	5	c	41	92	6	5	-	-	10	10	2500	1	3
Mildenhall	1022·2	+20	E'N	3	dd	44	97	5	5	-	-	10	10	450	1	*
Cranwell	1023·5	+22	E	2	ido	43	97	4	5	-	-	10	10	450	1	*
Birmingham	1023·0	+22	ENE	1	f	41	97	2	-	-	-	10	10	<150	1	*
Upper Heyford	1022·4	+18	NE	3	m	40	97	4	5	-	-	10	10	2500	1	*
Ross-on-Wye	1021·5	+16	NE	2	zo	45	92	5	5	-	-	10	10	800	1	*
Hartland Point	1018·9	+16	N	2	c	49	97	7	5	-	-	7-8	7-8	1500	1	2
Bristol	1021·3	+18	-	0	zo	46	92	5	5	-	-	9+	9+	4000	1	*
Portland Bill	1019·6	+6	E	2	c	50	92	7	5	-	-	10	10	2500	1	2
Plymouth	1019·6	+14	-	0	c	50	85	5	5	-	-	10	10	2500	1	2
The Lizard	1020·7	+4	WSW	3	roro	48	97	7	8	2	-	9	10	1500	1	2
Scilly (St.Mary's)	1021·3	+12	NW'N	4	c	49	85	8	8	7	-	7-8	9	1500	1	3
Guernsey	1018·8	+10	-	0	o	49	92	6	5	-	-	10	10	1500	1	2
Pembroke	1019·7	+18	SSE	3	c	49	97	5	8	2	-	7-8	9	1500	1	2
Holyhead	1021·7	+22	E'N	4	o	47	92	5	5	-	-	10	10	1500	1	3
Chester (Sealand)	1023·3	+26	E'S	2	m	45	85	4	5	-	-	10	10	4000	1	*
Manchester	1023·5	+20	NE'E	2	of+	47	85	2	5	-	-	10	10	2500	1	*
Spurn Head																
Catterick	1024·8	+16	E'N	1	zo	45	97	6	5	-	-	10	10	800	1	*
Tynemouth	1026·8	+20	ESE	4	iro	45	97	6	-	2	-	10	10	1500	1	2
St. Abbs Head	1025·7	+12	ESE	4	c/r	44	97	6	5	2	-	7-8	10	1500	1	3
Leuchars	1026·6	+22	E	4	dodo	46	97	5	5	-	-	10	10	800	1	*
Renfrew (Abbots I.)	1025·5	+18	E'S	3	m	47	85	4	5	-	-	4-6	4-6	2500	1	*
Eskdalemuir	1025·5	+18	NE'E	2	bc	41	85	7	5	-	-	4-6	4-6	1500	1	*
Point of Ayre	1023·6	+16	SE	4	bc	47	85	7	5	4	-	1	4-6	1500	0	2
Tiree	1023·2	+12	W'S	2	ido	48	85	6	5	-	-	10	10	1500	0	2
Stornoway	1024·4	+16	ESE	3	c	49	85	7	5	2	-	7-8	10	2500	1	1
Dalwhinnie	1027·1	+20	-	0	bc	40	85	6	4	4	-	4-6	4-6	2500	0	*
Aberdeen	1028·4	+22	SE'E	4	iro	44	97	5	6	2	-	7-8	10	800	1	3
Wick	1027·3	+14	SE	5	dodo	45	97	6	5	2	-	7-8	10	1500	1	3
Lerwick	1030·7	+8	SSE	5	co	43	92	7	8	2	-	4-6	10	800	1	*
Blacksod Point	1023·4	+8	N	1	bc	45	92	8	4	-	-	2-3	2-3	1500	0	2
Malin Head	1022·5	+18	SW	1	zo	43	92	6	8	-	-	7-8	7-8	1500	0	4
Aldergrove	1023·2	+20	-	0	zo	47	85	5	5	-	-	10	10	2500	1	*
Birr Castle	1022·6	+12	NNW	1	b	46	85	8	-	-	-	0	0	-	1	*
Valentia Obsy. †	1024·7	+6	N'W	2	c	48	85	8	8	-	-	9+	9+	1500	1	3
Roches Point	1022·8	+12	N	4	bc	48	85	8	5	-	-	4-6	4-6	2500	1	3

PAST 24 HOURS.

Stations	Weather 7h.—13h. 11th (37)	13h.—18h. 11th (38)	18h. 11th to 1h. 12th (39)	1h.—7h. 12th (40)
London (Kew)	cmoff	cbcffcm	cmdodocmo	cmo
Croydon	cmocmcf	cfmbcfcf	oFedfom	cmozo
S. Farnborough	c	cfbcbcf	bc Fdoc	cmo
Boscombe Down	bcfgiFbcm	cmo	bcomoom	omo
Calshot (Soton.)	c	cmo	cmobFom	omdodomo
Lympne	cmobc	bbcmfdo	omodozo	ozo
Manston	bcmoff	offdd	c	czo
Shoeburyness	febbcfe	fefe	romoc	bcmoc
Felixstowe	bFbm	bmiroido	omo°	omido
Gorleston	cbcc	cododoc	ccq	cq
Mildenhall	bFFe	bFfedo	dodoomo	omoido
Cranwell	bFFef	cfmoidm	oidomomo	omo
Birmingham	bmf	bf	foid	oc
Upper Heyford	cm	cmomcm	cmoddmf	cdomcmo
Ross-on-Wye	cmomoc	cmomo	omocomo	pomo
Hartland Point	circ	c	c	cbc
Bristol	crocmo	cmo	cmo	cdomfm
Portland Bill	cdc	c	c	c
Plymouth	cpromobc	bccmo	obcmo	bccmow
The Lizard	c	cprrr	c	cprc
Scilly (St.Mary's)	cpoc	cpoc	cbcc	cpoc
Guernsey	cprbc	cprc		cido
Pembroke	romoqc	iroqcmo	moc	cmo
Holyhead	bdodomoc	comо	cmoc	cdodommo
Chester (Sealand)	cmmo	cmmfm	cmcdodom	cwbc
Manchester	cmoff	cfmff	cmmo	cmo
Spurn Head	bccw		oc	cq o
Catterick	cmo	cmomo	omo	ozocmo
Tynemouth	bc	coiro	olroo	o
St. Abbs Head	c	omirc	c	c
Leuchars	c	ccmodod o	cdodocmo	cmo
Renfrew (Abbots I.)	cffmmo	cmobc	bcmboff	cffm
Eskdalemuir	c	cbcobc	cidomoc	c
Point of Ayre	c	c	c	c
Tiree	c	c	c	c
Stornoway	c	c	c	cbc
Dalwhinnie	cir	c	* *	ciro
Aberdeen	czoro	croro	ciroc	cciro
Wick	c	cmodo	cdoc	c
Lerwick	cido	cir	c	cpr
Blacksod Point	bc	bc	o	o
Malin Head	c	zo	cprozozc	c
Aldergrove	bccbcmo	bccidom	cmo	cmoido
Birr Castle	c	cb	c	c
Valentia Obsy. †	cproc	cproc	cprobcwc	cwbcwbw
Roches Point	bccbc	bc	c	c

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s₀, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s₀/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). ⁄gale.
⊕ Solar halo. ⊕ lunar halo. ⌂Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

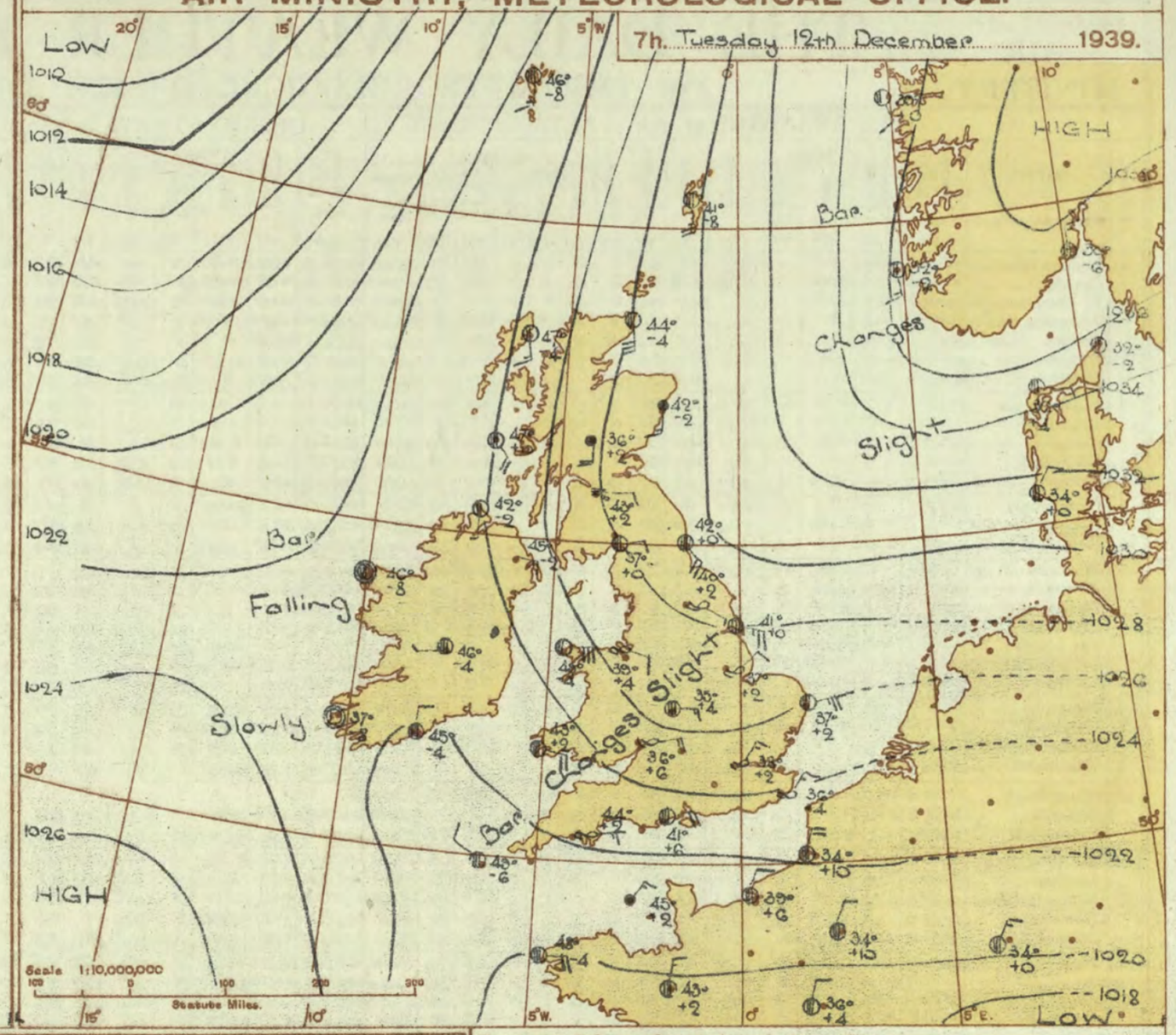
Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.



Districts.	Forecasts for the 24 hours commencing 12 noon, G.M.T. 12th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Light to moderate northeast to east winds; dull; rather cold.
5 S.W. England 6 South Wales ... 7 North Wales ...	Light to moderate east to southeast or variable winds; cloudy but with bright intervals locally to leeward of hills; rather cold.
8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Light southeasterly winds; cloudy; rather cold.
13 A. W. Scotld. B.N.W.Scotland. 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Light to moderate southeast to south winds; cloudy but with bright intervals locally; average temperature.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Light variable to southerly wind; mainly fair today; cloudy with local rain or drizzle tomorrow and perhaps local fog; mild.

Barometer. Isobars are drawn for intervals of two millibars.
Wind, Weather Symbols. For explanation see opposite page.
Sea Disturbance. Rough. High.
Barometric Change from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

The large anticyclone over Scandinavia which is decreasing slightly in intensity will maintain cloudy weather over Great Britain with southeast to east winds. A feeble trough of low pressure on the Atlantic will move eastwards causing local rain or drizzle in Ireland.

FURTHER OUTLOOK.

Little change.

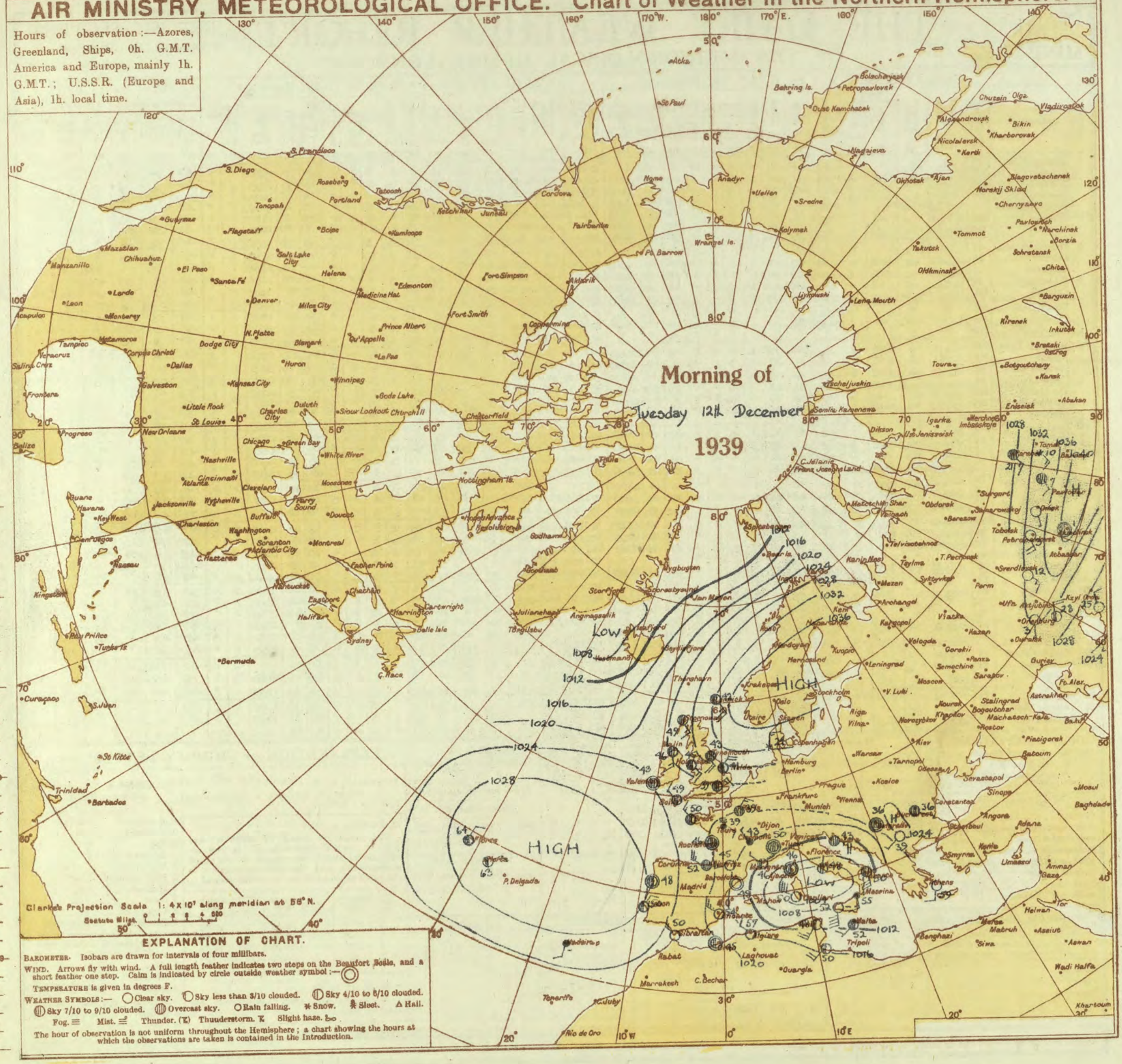
Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

Hours of observation :—Azores, Greenland, Ships, 0h. G.M.T. America and Europe, mainly 1h. G.M.T.; U.S.S.R. (Europe and Asia), 1h. local time.



EXPLANATION OF CHART.

BAROMETER. Isobars are drawn for intervals of four millibars.

WIND. Arrows fly with wind. A full length feather indicates two steps on the Beaufort Scale, and a short feather one step. Calm is indicated by circle outside weather symbol :—

TEMPERATURE is given in degrees F.

WEATHER SYMBOLS :— Clear sky. Sky less than 3/10 clouded. Sky 4/10 to 6/10 clouded. Sky 7/10 to 9/10 clouded. Overcast sky. Rain falling. Snow. Sleet. Hail. Fog. Mist. Thunder. Thunderstorm. Slight haze.

The hour of observation is not uniform throughout the Hemisphere; a chart showing the hours at which the observations are taken is contained in the Introduction.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Tuesday 12th. December, 1939.

No. 28,509.

OBSERVATIONS at 1 hr. G.M.T. 12th. December

District.	Stations.	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather. (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low. (9)	Med. (10)	High (11)	Amount Low 0–10 (12)	Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1025.9	+4	ENE	3	z.	39	85	5	5	–	–	10	10	1500
	S. Farnborough	226	1023.8	+8	NE'E	3	e/d	40	97	6	5	–	–	10	10	2500
	Boscombe Down	417	1022.9	-2	NNE	2	m	42	97	4	5	–	–	10	10	800
	Calshot (Sthmtn.)	8	1022.3	+2	N'E	2	m	45	92	4	5	–	–	10	10	1500
	Lympne ...	346	1023.0	+6	NE	4	z.	37	75	6	5	–	–	10	10	1500
	Manston ...	154	1023.6	+6	E'N	3	z.	39	75	5	5	–	–	10	10	1500
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1024.2	+8	NE'E	4	z.	39	75	5	5	–	–	10	10	2500
	Gorleston ...	5	1025.5	+4	NE	5	c	38	85	6	5	–	–	10	10	2500
	Mildenhall ...	19	1025.3	+4	ENE	4	z.	38	85	6	5	–	–	10	10	1500
	Cranwell ...	240	1026.2	+6	ENE	2	z.	38	85	5	5	–	–	10	10	800
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1024.7	+6	NE	3	d.d.	88	97	4	5	–	–	10	10	220
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1021.8	+6	ENE	2	c	48	85	8	5	–	–	7-8	7-8	2500
	Bristol ...	209	1024.1	+6	ENE	1	z.	41	97	5	5	–	–	9	9	2500
	Portland Bill ...	32	1022.3	+4	ENE	3	c	45	92	7	5	–	–	7-8	7-8	4000
	Plymouth ...	82	1022.1	+4	E'S	1	bc	48	92	5	5	–	–	2-3	2-3	4000
	The Lizard ...	240	1021.9	+2	W	2	c	48	97	7	8	–	–	9	9	1500
	Scilly (St. Mary's)	163	1022.2	+2	NW'N	2	c	49	92	7	5	–	–	9+	9+	1500
	Guernsey ...	175														
6	Pembroke ...	142	1022.9	+2	E'N	3	c	47	92	7	5	–	–	10	10	1500
7	Holyhead ...	26	1024.4	+6	ESE	3	c	45	85	8	5	–	–	9	9	2500
	Chester (Sealand)	16	1025.7	+6	E	2	d.d.	44	92	4	–	2	–	10	10	800
8	Manchester ...	70	1026.3	+10	E'N	4	z.	43	85	6	5	–	–	10	10	1500
10	Spurn Head ...	29	1026.9	+6	ENE	4	c	41	75	7	5	–	–	10	10	2500
	Catterick ...	175	1028.0	+6	ESE	1	z.	40	85	6	5	–	–	10	10	1500
	Tynemouth ...	108	1028.9	+4	SE	4	o	43	75	6	5	–	–	10	10	1500
11	St. Abbs Head	280	1029.0	0	SE	5	c	42	85	7	5	2	–	7-8	10	1500
	Leuchars ...	36	1029.2	+10	ESE	4	c	43	85	6	5	–	–	10	10	1500
12	Renfrew (Abbots I.)	19	1027.7	+2	–	0	of	40	97	2	5	–	–	10	10	1500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1026.0	+4	ESE	3	c	47	92	7	5	–	–	10	10	2500
13A	Tiree ...	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1025.7	-2	SSE	3	c	49	85	7	5	7	–	4-6	10	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1028.9	-4	SE	7	c	45	85	7	5	2	–	7-8	10	1500
16	Lerwick ...	156	1031.6	+2	SSE	5	c	42	75	7	8	7	–	4-6	10	800
17	Blacksod Point	18	1023.6	-2	–	0	c	45	97	7	–	2	–	0	10	–
18	Malin Head ...	84	1024.0	+2	S	3	z.	46	85	6	9	–	–	9+	9+	2500
	Aldergrove ...	268	1025.1	+2	E'S	2	z.	45	85	6	5	–	–	10	10	4000
19	Birr Castle ...	173	1023.6	-2	NNW	1	c	44	97	7	5	–	–	10	10	2500
20	Valentia Obsy.	30	1024.0	-10	–	0	c	43	97	8	5	–	–	9	9	2500
	Roches Point	22	1023.4	-2	N'W	3	c	47	92	8	5	–	–	9	9	2500

OBSERVATIONS at 7 hr. G.M.T. 12th. December

Stations.	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low. (23)	Med. (24)	High (25)	Amount Low 0–10 (26)	Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1024.7	+4	NE	3	z.	39	75	6	5	–	–	10	10	1500	1	*
Croydon	1024.2	+2	NE	3	z.	38	75	6	5	–	–	10	10	1500	1	*
S. Farnborough	1024.7	+6	NE	3	z.	37	75	6	5	–	–	10	10	2500	1	*
Boscombe Down	1024.6	+10	NE'E	3	z.	36	85	6	5	–	–	10	10	1500	1	*
Calshot (Sthmtn.)	1023.7	+6	NE	3	z.	39	75	6	5	–	–	10	10	1500	1	2
Lympne	1023.7	+4	NE	3	z.	36	75	6	5	–	–	10	10	1500	1	§3
Manston	1024.2	+6	E	3	z.	38	75	6	5	–	–	10	10	1500	1	*
Shoeburyness	1024.4	+2	NE	4	c	39	85	6	5	–	–	10	10	1500	1	*
Felixstowe	1024.6	+6	NE	4	c/d	39	75	6	5	–	–	10	10	2500	1	1
Gorleston	1025.8	+2	E'N	5	c	37	85	7	5	–	–	10	10	2500	1	3
Mildenhall	1025.8	+2	NE'E	2	id.	37	85	6	5	–	–	10	10	1500	1	*
Cranwell	1026.6	+2	NE'E	2	z.	37	92	6	5	–	–	10	10	1500	0	*
Birmingham	1026.5	+4	E	3	c	35	75	6	5	–	–	10	10	1500	1	*
Upper Heyford	1026.2	+6	ENE	3	z.	35	75	6	5	–	–	10	10	1500	1	*
Ross-on-Wye	1025.3	+6	ENE	3	z.	36	85	6	5	–	–	10	10	1500	1	*
Hartland Point	1022.0	0	ENE	3	bc	42	92	8	5	–	–	4-6	4-6	2500	1	2
Bristol	1025.4	+4	ENE	2	c/f	37	92	5	5	2	–	7-8	10	800	1	*
Portland Bill	1022.9	+6	ENE	4	c	41	92	7	5	–	–	0	10	2500	1	3
Plymouth	1022.2	+2	ENE	3	z.	44	85	6	5	–	–	3	3	4000	1	1
The Lizard	1021.5	-2	ESE	4	cjp	43	92	7	5	–	–	10	10	1500	1	3
Scilly (St. Mary's)	1021.2	-6	NW	2	cjp	49	97	7	5	–	–	10	10	1500	1	2
Guernsey	1021.2	+2	NE'E	3	id.	45	92	6	8	–	–	10	10	1500	1	2
Pembroke	1023.1	+2	E'S	4	c	43	85	5	5	2	–	7-8	10	1500	1	2
Holyhead	1024.2	-4	E	6	bc	43	92	7	5	–	–	2-3	2-3	4000	1	3
Chester (Sealand)	1026.8	+4	ESE	2	z.	39	75	5	5	–	–	10	10	1500	1	*
Manchester	1027.2	+2	E'N	3	z.	40	75	6	8	–	–	10	10	1500	1	
Spurn Head	1027.4	0	ESE	5	o	41	92	7	5	–	–	10	10	1500	0	3
Catterick	1028.3	+2	SE'E	1	z.	40	85	5	5	–	–	10	10	1500	1	*
Tynemouth	1029.2	0	SE	4	o	42	75	6	5	–	–	10	10	1500	1	2
St. Abbs Head	1028.3	-4	SE	4	c	41	75	8	5	2	–	7-8	10	1500	0	3
Leuchars	1028.8	-2	SE	2	z.	42	75	6	5	–	–	10	10	2500	1	*
Renfrew (Abbots I.)	1027.8	+2	E	2	m/f	43	85	4	5	–	–	10	10	1500	1	*
Eskdalemuir	1028.1	0	E'N	2	c	37	85	7	5	–	–	10	10	1500	1	
Point of Ayre	1026.3	+2	SE	5	c	42	85	7	5	2	–	7-8	10	1500	1	3
Tiree	1024.1	0	SE'E	4	c	47	85	7	5	–	–	9+	9+	2500	0	3
Stornoway	1025.0	-4	SSE	3	bc	47	75	7	5	4	–	4-6	4-6	2500	1	2
Dalwhinnie	*	+2	S	4	ir.	36	92	6	4	6	–	4-6	4-6	1500	1	*
Aberdeen	1029.5	-2	SSE	3	ir.	42	75	6	8	–	–	9	9	2500	1	2
Wick	1027.8	-4	SSE	6	c	44	75	7	5	2	–	7-8	10	1500	1	3
Lerwick	1030.3	-8	S'E	5	c/pr	41	85	7	8	7	–	4-6	9	1500	1	*
Blacksod Point	1021.8	-8	–	0	c	46	97	7	–	2	–	0	10	–	0	1
Malin Head	1023.7	-2	S	1	bc	42	85	7	8	–	–	4-6	4-6	4000	0	3
Aldergrove	1024.7	-2	ESE	3	id.	45	85	6	5	–	–	10	10	2500	1	*
Birr Castle	1022.8	-4	WSW	1	c	46	92	7	5	1	–	7-8	10	2500	1	*
Valentia Obsy.	1022.1	-8	–	0	b	37	97	[illegible]	5	–	–	1	1	2500	1	2
Roches Point	1021.9	-4	N	2	c	45	97	8	5	–	–	9+	9+	2500	1	2

PAST 24 HOURS.

Stations.	Temperature Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Night 18h–7h mm. (35)	Sunshine 11th. Hrs. (36)
London (Kew)	49	38	37	–	Tr	0.0
Croydon	49	37	36	–	0.3	0.0
S. Farnborough	50	37	36	–	0.2	0.0
Boscombe Down	49	35	34	–	Tr	2.5
Calshot (Sthmtn.)	50	35	38	–	Tr	0.2
Lympne	48	35	34	0.1	0.2	4.2
Manston	48	36	36	1	Tr	0.4
Shoeburyness	45	38	36	Tr	0.2	0.0
Felixstowe	50	39		0.4	Tr	3.4
Gorleston	48	38	37	0.3	–	*
Mildenhall	46	37	36	0.1	Tr	0.0
Cranwell	45	37	36	Tr	Tr	0.0
Birmingham	45	35	33	*	0.2	0.0
Upper Heyford	51	34	33	–	0.2	*
Ross-on-Wye	47	36	35	–	0.3	0.0
Hartland Point	51	42	40	1	–	0.0
Bristol	49	37	36	Tr	0.1	0.0
Portland Bill	51	40	*	3	–	*
Plymouth	52	44	42	1	–	1.5
The Lizard	50	47	*	2	1	0.3
Scilly (St. Mary's)	50	48	*	0.2	0.1	0.0
Guernsey	52	45	40	1	0.3	0.6
Pembroke	50	42	*	2	–	0.0
Holyhead	49	42	39	Tr	–	0.6
Chester (Sealand)	48	39	37	Tr	Tr	0.0
Manchester	48	39	37	–	–	0.0
Spurn Head	48	40	*	–	–	4.0
Catterick	47	35	37	–	–	1.4
Tynemouth	48	42	40	0.4	0.4	*
St. Abbs Head	47	40	*	0.2	0.4	*
Leuchars	48	41	39	Tr	0.3	0.0
Renfrew (Abbots I.)	48	36	33	Tr	–	0.0
Eskdalemuir	45	37	36	–	Tr	0.5
Point of Ayre	49	42	*	–	–	0.6
Tiree	50	45	44	1	–	0.3
Stornoway	49	46	*	–	–	0.0
Dalwhinnie	45	36	31	0.1	Tr	0.3
Aberdeen	47	40	38	0.4	0.1	0.0
Wick	48	43	*	Tr	Tr	*
Lerwick	47	40	*	Tr	Tr	*
Blacksod Point	50	(40)	*	Tr	–	*
Malin Head	50	40	*	0.1	–	0.6
Aldergrove	47	44	40	Tr	Tr	0.0
Birr Castle	49	43	43	–	–	0.4
Valentia Obsy.	49	36	31	Tr	0.3	0.6
Roches Point	50	45	*	–	–	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon. 9h—18h, Kensington. 9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet.	Weather Morning.	Afternoon.	Night.	Temperature Day Max. °F.	Night Min. °F.	Min. on Grass °F.	Rainfall Day. mm.	Night. mm.	Sunshine to Sunset. hrs. Yesterday.	Humidity 15h. G.M.T. % Yesterday.	9h. G.M.T. % To-day.	Visibility 9h. To-day.
		24 hrs. ended 9h.											
Kew ...	18	cm.eff	cbcffcm	c,d.dcm.	49	38	37	–	Tr	0.0	*	*	
Croydon ...	217	cmef	cf,bcfof	ofedfm.	49	37	36	–	0.3	0.0	*	*	6
Greenwich (Royal Observatory) ...	149	cf	cf	cfd.c	47	37	36	–	0.3	0.0	96	83	5
City (Bunhill Row) ...	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	49	39	38	–		0.0	87	75	*
Regents Pk. (Botanic Gardens)‡ ...	168	*	*	*	47	38	34	–	Tr	0.0	92	81	*
Camden Square ...	110	o	o/r	*	47	38	33	–	0.3	*	*	83	*
Kensington ...	80	bcf	cbcfcp	*	48	38	36	–	0.3	0.0	90	82	*
Hampstead Observatory ...	480										*		*

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 12th.

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations.	18h. G.M.T. 11th. December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	7h. G.M.T. 12th. December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris ...	1017.5	–	0	c	41	1021.0	NE	4	o	34	43	34	–	–
Brussels ...														
Berlin ...														
Zürich ...														
Rome ...	1016.2	SE	4	RR	48						*	*	21	–

EXPLANATION of FIGURES, LETTERS, etc.

COLUMNS 2, 16.

The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.

The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.

Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 —Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6¼ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 —Code for State of Sea.

0 Calm.	5 Very rough.
1 Smooth.	6 High.
2 Slight.	7 Very high.
3 Moderate.	8 Precipitous.
4 Rough.	9 Confused.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

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AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Wednesday, 13th December 1939.

No. 28,510

OBSERVATIONS at 13h. G.M.T. 12th. December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1024.4	−6	NE	3	zo	39	75	5	5	–	–	10	10	1500
	Croydon ...	1024.3	−6	NE	2	zo	38	85	6	5	–	–	7-8	10	1500
	S. Farnborough	1024.9	−4	NE'E	2	zo	38	75	6	5	–	–	10	10	1500
	Boscombe Down	1024.9	−4	NE'E	3	zo	37	85	5	5	–	–	10	10	1500
	Calshot (Soton.)	1024.1	−2	ENE	3	zo	40	75	6	5	–	–	10	10	1500
	Lympne ...	1024.3	−6	NE	4	c	36	75	6	5	–	–	10	10	1500
	Manston ...	1024.4	−8	E'N	3	zo	38	75	6	5	–	–	10	10	1500
2	Shoeburyness ...	1024.1	−6	ENE	3	c	39	75	6	5	–	–	10	10	1500
	Felixstowe ...	1024.7	−2	NE	4	o/d	39	75	7	5	–	–	10	10	1500
	Gorleston ...	1026.5	−10	ENE	4	c	39	65	7	5	–	–	10	10	2500
	Mildenhall ...	1026.2	−2	NE'E	3	c	38	85	7	5	–	–	10	10	4000
	Cranwell ...	1026.7	−6	ENE	2	zo	38	92	7	5	–	–	10	10	1500
3	Birmingham	1026.2	−2	E	3	m	37	75	4	5	–	–	10	10	1500
	Upper Heyford	1026.2	−6	ENE	2	ido	36	92	6	5	–	–	10	10	800
4	Ross-on-Wye ...	1025.7	−4	NE	3	c	37	85	6	5	–	–	10	10	1500
5	Hartland Point	1023.6	+10	ENE	4	c	38	85	7	5	2	–	7-8	10	2500
	Bristol ...	1026.0	+2	ENE	3	c	37	85	7	5	7	–	7-8	10	1500
	Portland Bill ...	1023.5	+2	NE	4	c	39	92	7	5	–	–	10	10	2500
	Plymouth ...	1023.7	−2	E'N	3	zo	40	75	6	9	–	–	9+	9+	1500
	The Lizard ...	1022.4	+2	E	5	c	45	92	7	8	2	–	9	10	1500
	Scilly (St. Mary's)	1021.4	−4	E'S	4	roro	48	92	6	8	2	–	4-6	10	1500
	Guernsey ...	1021.9	−4	NE	2	c	43	65	7	8	2	–	9	10	2500
6	Pembroke ...	1024.5	+8	SE	4	c	41	85	7	5	2	–	7-8	10	1500
7	Holyhead ...	1025.0	+2	E	3	c	41	75	7	5	–	–	10	10	2500
	Chester (Sealand)	1027.1	−6	ESE	2	zo	39	75	6	5	–	–	10	10	800
8	Manchester ...	1027.4	−6	ESE	2	zo	40	75	5	5	–	–	10	10	1500
10	Spurn Head ...	1027.4	0	ESE	4	iro	41	75	7	5	–	–	10	10	1500
	Catterick ...	1028.2	−10	—	0	c	41	75	7	5	–	–	10	10	1500
	Tynemouth ...	1028.3	−6	SE	3	c	44	65	8	8	–	–	9+	9+	2500
11	St. Abbs Head	1028.7	0	S	2	c	41	75	8	8	6	–	7-8	10	1500
	Leuchars ...	1029.0	−2	SSE	2	c	42	75	7	5	–	–	9+	9+	2500
12	Renfrew (Abbots I.)	1028.7	+2	SE'S	3	zo	41	65	6	5	–	–	9+	9+	2500
	Eskdalemuir ...	1028.0	−6	SSE	2	c	38	75	7	5	–	–	10	10	1500
	Point of Ayre ...	1026.9	−2	SSE	5	c	41	75	7	5	–	–	10	10	2500
13A	Tiree ...	1024.7	0	SE	5	o	43	85	7	5	–	–	10	10	1500
13B	Stornoway ...	1024.9	0	SSE	5	c	47	75	8	5	5	9	4-6	7-8	2500
15	Dalwhinnie ...	1027.0	−2	S	4	c	35	75	7	5	7	–	7-8	10	2500
	Aberdeen ...	1029.0	−8	SSE	3	o/r	43	75	6	5	–	–	10	10	2500
	Wick ...	1027.2	−12	S	5	c	43	75	8	5	7	8	7-8	9+	1500
16	Lerwick...	1028.5	−14	S	6	c/r	42	85	7	8	7	–	4-6	7-8	800
17	Blacksod Point..	1021.7	−2	SE	3	c	47	97	7	–	7	2	0	7-8	–
18	Malin Head ...	1023.9	+2	S'E	4	zo	43	85	6	5	–	–	7-8	7-8	1500
	Aldergrove ...	1026.2	+4	ESE	3	zo	42	75	6	5	–	–	10	10	2500
19	Birr Castle ...	1023.2	+2	SE	1	c	46	85	7	5		–	9	10	800
20	Valentia Obsy. †	1022.2	−2	SE'S	2	c	47	75	9	5	7	2	Tr	7-8	4000
	Roches Point ...	1022.0	−4	E	3	zo	50	85	6	5	–	–	9	9	2500

OBSERVATIONS at 18h. G.M.T. 12th. December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
1	London (Kew)...	1025.4	+8	NE	3	zo	39	75	5	5	–	–	10	10	1500	1	*
	Croydon ...	1024.9	+8	NE	2	o/d	38	85	4	5	–	–	10	10	2500	1	*
	S. Farnborough	1025.0	+6	NE'N	3	ido	38	75	5	5	–	–	10	10	1500	1	*
	Boscombe Down	1025.0	+6	NE'E	2	zo	37	85	5	5	–	–	10	10	1500	1	*
	Calshot (Soton.)	1024.3	+2	NE	2	zo	39	85	6	5	–	–	10	10	1500	1	2
	Lympne ...	1024.6	+6	NE	3	zo	37	85	6	5	–	–	10	10	1500	1	§ 3
	Manston ...	1024.6	+4	E	3	zo	38	75	6	5	–	–	10	10	1500	1	*
2	Shoeburyness ...	1025.0	+8	ENE	3	c	39	75	6	5	–	–	10	10	2500	1	*
	Felixstowe ...	1025.0	+4	NE	4	zo	40	75	6	5	–	–	10	10	2500	1	2
	Gorleston ...	1026.3	+2	SSE	4	c	39	85	7	5	–	–	10	10	2500	1	3
	Mildenhall ...	1025.9	+2	NE	3	c	37	75	7	5	–	–	10	10	2500	1	*
	Cranwell ...	1027.1	+6	ENE	2	zo	37	97	5	5	–	–	10	10	2500	0	*
3	Birmingham	1026.7	+2	ENE	3	c	36	75	6	5	–	–	10	10	1500	1	*
	Upper Heyford	1026.3	+6	ENE	1	zo	36	75	6	5	–	–	10	10	1500	1	*
4	Ross-on-Wye ...	1025.9	+4	ENE	2	zo	37	85	6	5	–	–	10	10	1500	1	*
5	Hartland Point	1024.0	+6	E	4	c	36	85	7	5	2	–	4-6	9	4000	1	2
	Bristol ...	1025.8	+2	ENE	3	zo	37	85	6	5	–	–	10	10	1500	1	*
	Portland Bill ...	1024.7	−8	NE	4	c	39	92	7	5	–	–	10	10	2500	1	3
	Plymouth ...	1024.1	+6	NE'E	2	zo	39	75	5	5	–	–	4-6	4-6	2500	1	1
	The Lizard ...	1023.0	+4	E	4	c	42	85	8	8	6	–	7-8	7-8	1500	1	2
	Scilly (St. Mary's)	1021.9	+10	E	5	c	45	85	8	8	2	–	7-8	10	1500	1	3
	Guernsey ...	1021.7	+6	NE'E	2	c	42	75	7	8	–	–	10	10	2500	1	3
6	Pembroke ...	1024.2	+2	SE'E	4	c	39	85	6	5	–	–	9+	9+	2500	1	2
7	Holyhead ...	1026.0	+10	ESE	2	c	40	85	6	5	–	–	9	9	2500	1	2
	Chester (Sealand)	1027.4	+6	E	2	zo	40	85	5	5	–	–	10	10	1500	1	*
8	Manchester ...	1027.4	+2	SSE	1	zo	40	75	5	5	–	–	10	10	1500	1	*
10	Spurn Head ...	1027.7	+8	E'S	5	c	40	75	7	5	–	–	10	10	2500	0	3
	Catterick ...	1028.1	+2	NE'N	1	iro	40	85	6	5	–	–	10	10	2500	1	*
	Tynemouth ...	1028.7	+4	SE	4	c	44	65	7	8	–	–	9+	9+	2500	1	2
11	St. Abbs Head	1028.3	0	S	2	c	41	85	7	5	2	–	7-8	10	2500	0	2
	Leuchars ...	1028.5	−2	SE	2	c	41	85	7	5	–	–	9+	9+	4000	1	
12	Renfrew (Abbots I.)	1028.4	+2	—	0	zo	40	75	6	5	–	–	10	10	4000	1	*
	Eskdalemuir ...	1029.4	+6	—	0	c	37	85	7	5	–	–	10	10	1500	1	*
	Point of Ayre ...	1026.9	+4	SSE	5	c	42	75	7	8	1	–	9	10	1500	0	3
13A	Tiree ...	1024.7	+2	SE'E	5	c	43	85	7	5	–	–	9	9	1500	0	4
13B	Stornoway ...	1024.6	0	SSE	5	c	45	75	7	5	7	–	7-8	9+	2500	1	3
15	Dalwhinnie ...	1028.7	+2	S	4	c	35	75	7	4	7	–	7-8	9+	2500	0	*
	Aberdeen ...	1028.7	−2	S	2	c/r	42	85	6	5	–	–	7-8	7-8	1500	1	2
	Wick ...	1027.3	+2	S	4	c	43	75	7	5	7	–	7-8	10	1500	1	2
16	Lerwick...	1027.3	−2	SSW	6	c/pr	42	85	7	8	7	–	4-6	7-8	1500	1	*
17	Blacksod Point..	1022.1	+8	SE	4	c	47	92	7	5	–	–	9	9	<150	0	3
18	Malin Head ...	1023.8	+4	S	3	zo	40	75	6	8	–	–	7-8	7-8	4000	0	3
	Aldergrove ...	1026.4	+8	E'S	2	zo	40	75	6	5	–	–	9	9	2500	1	*
19	Birr Castle ...	1024.0	+10	SE	1	b	42	92	7	–	–	–	0	0	–	1	
20	Valentia Obsy. †	1022.4	+8	ENE	2	bc	40	92	8	1	3	3	Tr	4-6	2500	1	3
	Roches Point ...	1023.2	+12	E'S	4	c	48	85	7	5	–	–	9+	9+	1500	1	3

PAST 24 HOURS. WEATHER.

District	Stations	7h.—13h. 12th (37)	13h.—18h. 12th (38)	18h. 12th to 1h. 13th (39)	1h.—7h. 13th (40)
1	London (Kew)...	cmoidoom	cdomcm	cmoidomcm	cmoidom
	Croydon ...	czoidom	cmoidom	cmdocmo	cmodo
	S. Farnborough	cmoidocz	idomogc	zoidoc	cmoidoc
	Boscombe Down	omo	omoidoom	omo	omocmo
	Calshot (Soton.)	idocmo	idocmo	cmo, idom	cmo
	Lympne ...	czo	ozo	ozo	omoro
	Manston ...	czo	czo	oczo	czodo
2	Shoeburyness ...	moc	cmo	moc	rosoc
	Felixstowe ...	dmoidoo	omo	omo	omoiro
	Gorleston ...	cq	c	cq	c
	Mildenhall ...	omoidomc	co	omo	cmoido
	Cranwell ...	oidomoc	idocmo	cmo	cmocirso
3	Birmingham	cdom	mc	co	om
	Upper Heyford	cmocdom	cmo	cmo	cmo
4	Ross-on-Wye ...	omooc	co	omo	omo
5	Hartland Point	bcc	c	c	c
	Bristol ...	cmo	cmodoc	ciromo	cmo
	Portland Bill ...	c	c	c	c
	Plymouth ...	cmo	cmobbczo	cpzo	ozo
	The Lizard ...	c	c	cbcc	bcc
	Scilly (St. Mary's)	roro	roroc	cbcc	c
	Guernsey ...	idopr	c	c	
6	Pembroke ...	cmo	moc	cmo	c
7	Holyhead ...	mcmoc	cmoc	cmoc	c
	Chester (Sealand)	cmo	cmo	cmo	cmommo
8	Manchester ...	cmozo	czo	czodo	cmom
10	Spurn Head ...	ciro	iroc	co	cpr
	Catterick ...	cidomoc	cmoro	roromoiro	irocmo
	Tynemouth ...	ocpoc	cpoc	co	oiro
11	St. Abbs Head	c	c	iroc	bcc
	Leuchars ...	cmocidoc	c	c	c
12	Renfrew (Abbots I.)	cmmo	cmozo	czomo	cmommo
	Eskdalemuir ...	c	c	ccmo	cmo
	Point of Ayre ...	c	c	c	c
13A	Tiree ...	oido	oc	c	c
13B	Stornoway ...	bcc	c	c	cpro
15	Dalwhinnie ...	c	c		c
	Aberdeen ...	cciro	ciro	ciroc	ciroc
	Wick ...	c	c	cbc	bcq
16	Lerwick...	cprir	cpr	cp:	cpr
17	Blacksod Point..	cbc	c	iro	idr
18	Malin Head ...	zo	zo	zo	bcczozc
	Aldergrove ...	idomoczo	czo	czob, cmo	cmo
19	Birr Castle ...	c	cb	b	bbcc
20	Valentia Obsy. †	bcwbcwbc	cbc	bcwbiwc	c
	Roches Point ...	czo	c	c	c

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_o$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_o$/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r$_o$, slight rain. rr, continuous rain.
<, less than (for cloud height). ⚑gale.
⊕ Solar halo. ⊕ lunar halo. ⌂Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

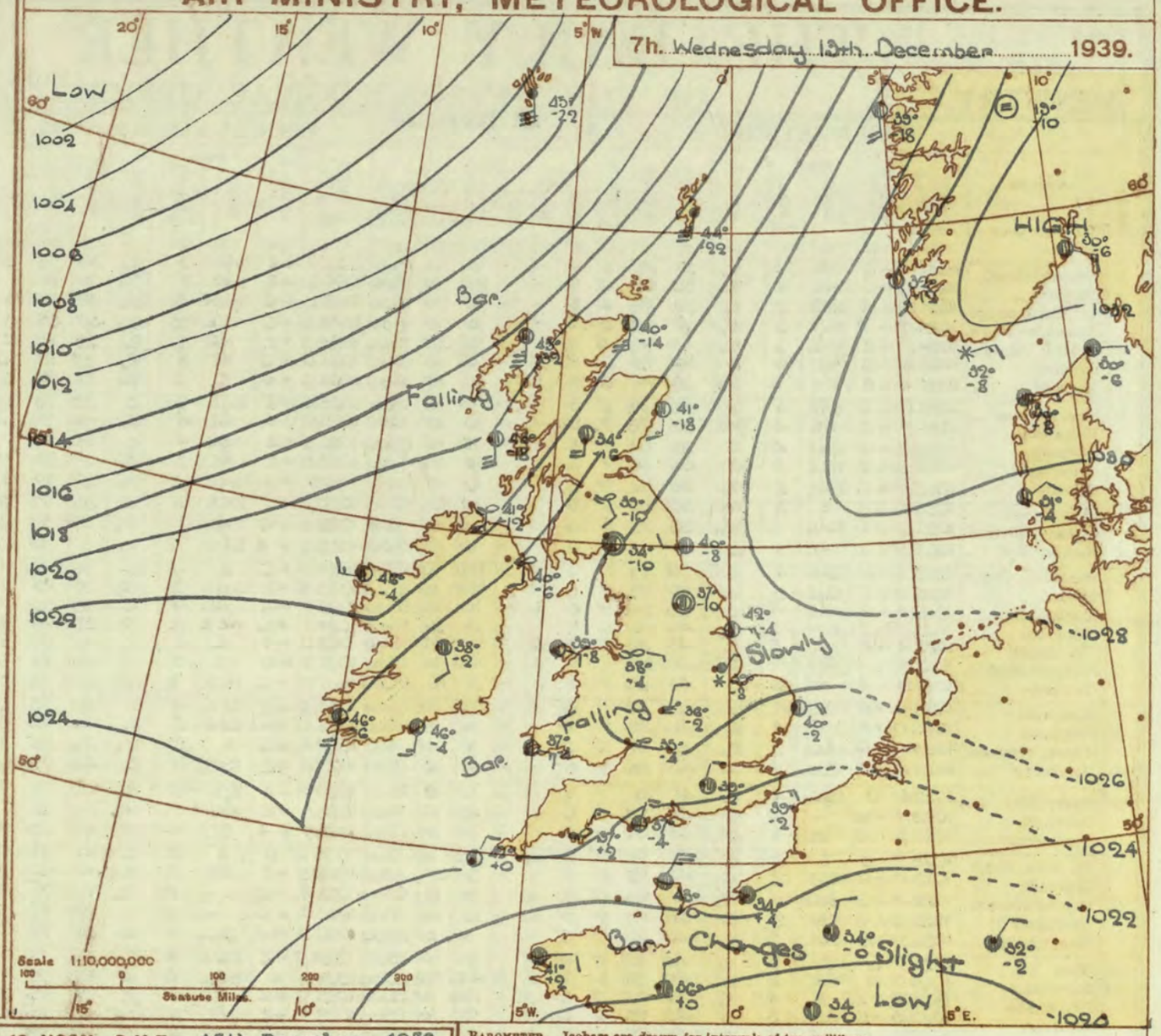
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Wednesday 13th. December 1939.



Districts.	Forecasts for the 24 hours commencing 12 noon, G.M.T. 13th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Light easterly to variable winds; continuing dull with slight local showers at first, rather cold.
5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Light southeast to south or variable winds; cloudy; rather cold but temperatures tending to rise.
13 A. W. Scotld. B.N.W.Scotland.	Fresh to strong south to southwest winds; cloudy with occasional rain or drizzle; bright intervals later; mild.
14 Mid Scotland 15 N. E. Scotland	Moderate south to southwest winds; cloudy with occasional rain or drizzle; becoming mild.
16 Orkneys and Shetlands	As 13A - 13B.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Light to moderate south to southwest winds; cloudy with occasional rain or drizzle at first; bright intervals later; milder.

Barometer. Isobars are drawn for intervals of two millibars.
Wind, Weather Symbols. For explanation see opposite page.
Sea Disturbance. Rough. High.
Barometric Change from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

General Inference.

A belt of high pressure covers the British Isles extending from the stationary anticyclone over Scandinavia to an anticyclone north of the Azores. Weather will continue cloudy with occasional rain or drizzle, particularly in the West and North, and winds will be south to southwest in Ireland and Scotland, becoming variable in other districts. Temperatures will tend to rise generally.

Further Outlook.

Quiet and cloudy conditions in the South; unsettled in the North.

Time of Issue of Gale Warnings.

Cone hoisted at 1030 13/12/39 in district 16.

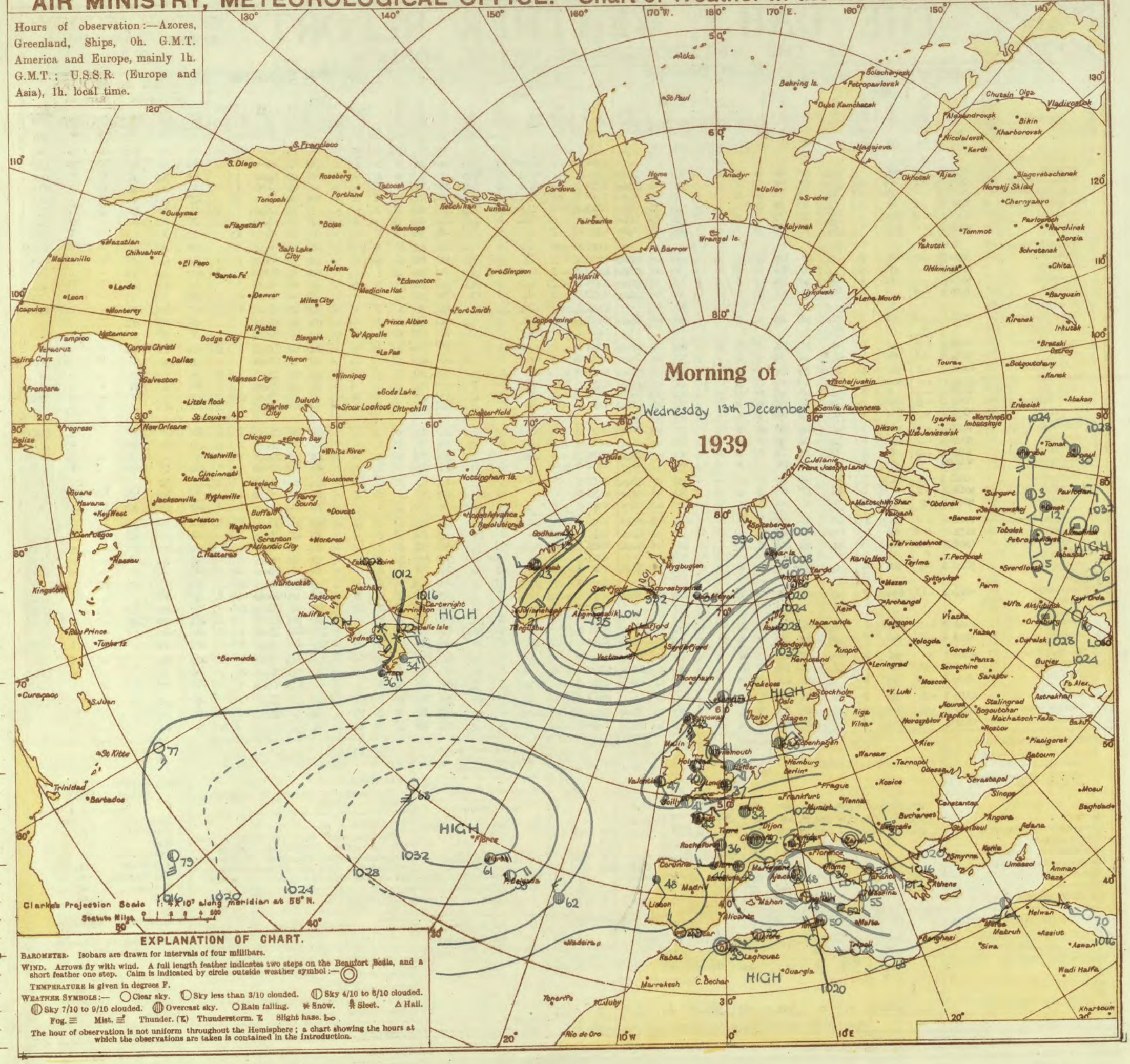
Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

Hours of observation:—Azores, Greenland, Ships, 0h. G.M.T. America and Europe, mainly 1h. G.M.T.; U.S.S.R. (Europe and Asia), 1h. local time.



EXPLANATION OF CHART.

BAROMETER. Isobars are drawn for intervals of four millibars.

WIND. Arrows fly with wind. A full length feather indicates two steps on the Beaufort Scale, and a short feather one step. Calm is indicated by circle outside weather symbol:—

TEMPERATURE is given in degrees F.

WEATHER SYMBOLS:— Clear sky. Sky less than 3/10 clouded. Sky 4/10 to 6/10 clouded. Sky 7/10 to 9/10 clouded. Overcast sky. Rain falling. Snow. Sleet. Hail. Fog. Mist. Thunder. (Thunderstorm. Slight haze.

The hour of observation is not uniform throughout the Hemisphere; a chart showing the hours at which the observations are taken is contained in the Introduction.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Wednesday, 13th December 1939.

No. 28,516

OBSERVATIONS at 1 hr. G.M.T. 13th. December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Med. (10)	High (11)	Amount Low 0–10 (12)	Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1024.9	−2	NE'N	1	Z₀	37	85	5	5	–	–	10	10	2500
	S. Farnborough	226	1025.2	−2	N'E	2	Z₀	37	75	6	5	–	–	10	10	2500
	Boscombe Down	417	1025.3	−4	NNE	2	Z₀	36	85	6	5	–	–	10	10	1500
	Calshot (Sthmtn.)	8	1024.5	−2	N'E	2	Z₀	40	75	6	5	–	–	10	10	1500
	Lympne ...	346	1024.3	−6	NE'E	2	Z₀	36	75	6	5	–	–	10	10	1500
	Manston ...	154	1023.9	−10	ENE	3	Z₀	38	85	6	5	–	–	10	10	1500
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1024.2	−10	NE	3	Z₀	41	85	6	5	–	–	10	10	2500
	Gorleston ...	5	1025.6	−4	NE	4	c	41	85	7	5	–	–	10	10	2500
	Mildenhall ...	19	1025.6	−6	N'W	2	o	37	85	7	5	–	–	10	10	2500
	Cranwell ...	240	1026.8	−4	–	0	Z₀	37	92	5	5	–	–	10	10	2500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1026.1	−6	NE	1	Z₀	35	85	6	5	–	–	10	10	1500
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1025.5	+4	E	3	c	37	75	7	5	2	–	7-8	10	2500
	Bristol ...	209	1026.4	−2	NE	2	Z₀	36	85	6	5	–	–	10	10	1500
	Portland Bill ...	32	1024.1	−4	NE	3	c	39	92	7	5	–	–	10	10	2500
	Plymouth ...	82	1025.1	+2	NNE	2	Z₀	39	75	6	5	–	–	10	10	2500
	The Lizard ...	240	1024.4	+4	E	3	c	39	85	7	5	2	–	7-8	7-8	1500
	Scilly (St. Mary's)	163	1023.9	+2	NE'E	3	c	41	85	6	5	–	–	10	10	2500
	Guernsey ...	175	1022.2	0	E'S	1	c	41	85	7	6	–	–	10	10	2500
6	Pembroke ...	142	1025.9	−4	E'N	3	c	38	65	6	5	–	–	10	10	2500
7	Holyhead ...	26	1027.0	+4	SE'E	3	c	40	75	7	5	–	–	10	10	1500
	Chester (Sealand)	16	1027.6	−2	E	2	Z₀	39	65	5	5	–	–	10	10	2500
8	Manchester ...	70	1027.6	−4	SE	2	c	39	75	7	5	–	–	10	10	1500
10	Spurn Head ...	29	1026.8	−2	SE'S	3	o	43	75	7	5	–	–	10	10	2500
	Catterick ...	175	1028.2	−6	–	0	ir₀	37	85	5	5	–	–	10	10	1500
	Tynemouth ...	108	1029.1	0	SW	2	o	41	75	6	5	–	–	10	10	1500
11	St. Abbs Head	280	1028.4	−4	S	3	c	39	85	7	8	6	–	4-6	7-8	2500
	Leuchars ...	36	1028.1	−8	SE	1	c	40	85	7	5	–	–	10	10	4000
12	Renfrew (Abbots I.)	19	1028.2	−6	ESE	1	Z₀	39	85	6	5	–	–	10	10	4000
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1027.3	−2	SE	4	c	43	75	7	5	1	–	9	10	2500
13A	Tiree ...	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1023.2	−14	SSE	7	c	43	75	7	5	7	–	7-8	9+	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1025.7	−12	SSW	4	bc	41	75	7	3	7	–	2-3	4-6	1500
16	Lerwick ...	156	1024.6	−16	SW	7	c	46	85	8	8	7	–	4-6	9	1500
17	Blacksod Point	18	1022.4	0	SE	5	id₀	47	97	7	6	–	–	10	10	<150
18	Malin Head ...	84	1024.0	−2	S	1	Z₀	41	75	6	8	–	–	9	9	2500
	Aldergrove ...	268	1026.3	−6	SE	3	Z₀	41	85	6	5	–	–	10	10	4000
19	Birr Castle ...	173	1025.3	+2	SE	2	b	38	97	8	–	–	–	0	0	–
20	Valentia Obsy.	30	1024.7	+6	SE'E	4	c	47	85	8	5	–	–	9+	9+	1500
	Roches Point	22	1025.5	+4	ESE	4	c	47	65	8	5	–	–	9+	9+	1500

OBSERVATIONS at 7 hr. G.M.T. 13th. December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Med. (24)	High (25)	Amount Low 0–10 (26)	Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1023.9	−6	NE'N	3	id₀	40	85	5	5	2	–	4-6	10	1500	1	*
Croydon	1023.9	−2	NNE	2	o/d	39	85	5	5	–	–	10	10	1500	1	*
S. Farnborough	1024.0	−6	N'W	2	id₀	37	85	6	5	–	–	10	10	1500	1	*
Boscombe Down	1024.8	+2	N'W	3	Z₀	35	85	5	5	2	–	9+	10	1500	0	*
Calshot (Sthmtn.)	1023.8	−2	N'W	3	Z₀	36	85	6	5	–	–	10	10	2500	1	2
Lympne	1023.0	−2	ENE	3	r₀r₀	39	85	6	–	2	–	10	10	1500	1	§ 3
Manston	1022.9	−2	E	3	d₀d₀	40	85	6	5	–	–	10	10	1500	0	*
Shoeburyness	1023.5	−4	NE	3	ir₀	40	92	7	5	–	–	10	10	1500	1	*
Felixstowe	1023.6	−2	NE	4	ir₀	40	85	6	5	–	–	10	10	1500	1	2
Gorleston	1024.8	−2	ENE	4	c	40	85	7	5	–	–	10	10	2500	0	3
Mildenhall	1024.8	−2	NE	2	c/d	39	85	7	5	2	–	9+	10	1500	1	*
Cranwell	1025.9	−8	NE	1	rs	39	92	6	5	–	–	10	10	1500	0	*
Birmingham	1026.2	−2	NNE	2	m	36	85	4	5	–	–	10	10	1500	1	*
Upper Heyford	1025.6	−2	NNE	2	Z₀	36	85	6	5	–	–	10	10	1500	1	*
Ross-on-Wye	1025.6	−4	NW	1	Z₀	35	85	6	5	–	–	10	10	1500	1	*
Hartland Point	1024.7	−2	E'N	3	c	37	85	8	5	2	–	7-8	10	2500	1	2
Bristol	1025.8	−2	ENE	2	Z₀	35	85	6	5	–	–	10	10	2500	1	*
Portland Bill	1023.9	−4	NE	3	c	37	92	7	5	–	–	10	10	2500	1	2
Plymouth	1025.3	+2	NE	3	Z₀	37	75	6	5	–	–	10	10	2500	1	1
The Lizard	1024.3	+2	E	3	c	37	85	7	8	2	–	9	10	1500	0	2
Scilly (St. Mary's)	1024.0	0	NE	2	c	42	85	6	5	–	–	10	10	2500	1	2
Guernsey																
Pembroke	1024.8	−4	ESE	3	c	37	85	7	5	–	–	9+	9+	2500	1	2
Holyhead	1025.6	−8	ESE	2	c	39	75	7	5	–	–	10	10	2500	1	2
Chester (Sealand)	1026.5	−4	ESE	1	Z₀	38	75	6	5	–	–	10	10	2500	1	*
Manchester	1025.5	−14	–	0	m	38	85	4	5	–	–	10	10	1500	1	*
Spurn Head	1025.8	−4	E	3	c	42	85	7	6	2	–	7-8	10	800	1	2
Catterick	1026.7	−10	–	0	c/r	37	92	6	5	2	–	9	10	1500	1	*
Tynemouth	1027.2	−8	W	2	o/r	40	85	6	–	2	–	10	10	1500	1	2
St. Abbs Head	1026.5	−12	WSW	1	c	38	85	8	5	6	–	7-8	9+	2500	0	1
Leuchars	1026.0	−16	S	4	c	39	85	7	5	–	–	10	10	2500	1	*
Renfrew (Abbots I.)	1025.6	−10	SE'S	2	Z₀	39	85	6	5	–	–	10	10	4000	1	*
Eskdalemuir	1026.0	−10		0	c	34	85	6	5	–	–	10	10	1500	1	*
Point of Ayre	1025.5	−6	S'E	3	c	40	75	7	5	1	–	9	10	2500	0	3
Tiree	1019.6	−18	SSE	6	c	44	85	7	8	–	–	9+	9+	1500	0	4
Stornoway	1018.1	−32	S'E	7	c	45	75	7	5	7	–	7-8	10	2500	1	3
Dalwhinnie	1024.4	−16	S	4	c	34	75	7	4	2	–	4-6	10	2500	0	*
Aberdeen	1024.7	−18	S	3	c	41	65	6	5	–	–	9+	9+	2500	1	2
Wick	1021.5	−14	S	5	bcq	40	75	7	5	1	1	2-3	4-6	2500	1	2
Lerwick	1021.1	−22	S'E	7	pr	44	75	7	8	7	–	7-8	10	800	1	*
Blacksod Point	1021.0	−4	W	3	bc	46	97	8	9	–	–	4-6	4-6	800	1	2
Malin Head	1020.7	−12	S	4	c	41	75	6	8	–	–	9	9	2500	0	3
Aldergrove	1024.6	−6	SSE	2	Z₀	40	85	6	5	–	–	10	10	4000	1	*
Birr Castle	1024.3	−2	SE	2	c	38	75	8	5	–	–	10	10	2500	1	*
Valentia Obsy.	1023.9	−6	SSE	4	c	46	92	8	5	2	–	4-6	10	2500	1	2
Roches Point	1024.7	−4	S	3	c	46	85	8	8	–	–	9+	9+	1500	1	3

PAST 24 HOURS.

Stations	Temperature Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Night 18h–7h mm. (35)	Sunshine 12th Hrs. (36)
London (Kew)	40	38	36	Tr	Tr	0.0
Croydon	38	36	36	Tr	Tr	0.0
S. Farnborough	39	36	35	Tr	Tr	0.0
Boscombe Down	37	34	33	Tr	–	0.0
Calshot (Sthmtn.)	41	37	36	Tr	Tr	0.0
Lympne	37	36	35	–	0.1	0.0
Manston	39	37	36	–	Tr	0.0
Shoeburyness	40	38	36	–	Tr	0.0
Felixstowe	40	39	37	Tr	Tr	0.0
Gorleston	40	39	38	–	–	*
Mildenhall	39	36	35	Tr	Tr	0.0
Cranwell	38	36	35	Tr	–	0.0
Birmingham	37	34	33	Tr	–	0.0
Upper Heyford	37	34	32	Tr	–	*
Ross-on-Wye	37	35	34	–	–	0.0
Hartland Point	43	36	35	–	–	0.2
Bristol	37	35	33	Tr	Tr	0.0
Portland Bill	40	35	*	–	–	*
Plymouth	44	37	36	–	–	0.8
The Lizard	50	35	*	–	–	0.0
Scilly (St. Mary's)	49	40	*	2	–	0.0
Guernsey				0.2		
Pembroke	45	37	*	–	–	0.0
Holyhead	43	38	37	–	–	0.0
Chester (Sealand)	40	37	35	–	–	0.0
Manchester	40	37	35	–	Tr	0.0
Spurn Head	41	39	*	0.1	0.2	0.0
Catterick	42	36	35	Tr	0.3	0.0
Tynemouth	45	39	37	0.2	0.1	*
St. Abbs Head	42	37	*	–	Tr	*
Leuchars	43	37	36	Tr	–	0.0
Renfrew (Abbots I.)	43	38	37	–	–	0.0
Eskdalemuir	38	34	33	–	–	0.0
Point of Ayre	43	40	*	–	–	0.0
Tiree	48	42	41	Tr	–	0.0
Stornoway	47	43	*	–	Tr	0.0
Dalwhinnie	37	33	30	Tr	–	0.3
Aberdeen	43	40	36	0.1	0.3	0.0
Wick	46	40	*	–	–	*
Lerwick	46	42	*	2	1	0.0
Blacksod Point	48	45	*	–	1	*
Malin Head	46	37	*	–	–	0.0
Aldergrove	46	35	34	Tr	–	0.0
Birr Castle	47	36	31	–	–	0.0
Valentia Obsy.	47	36	32	Tr	Tr	2.8
Roches Point	51	45	*	–	Tr	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Afternoon	Night	Temperature Day Max. °F.	Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	9h. G.M.T. % (To-day)	Visibility 9h.
Kew	18	em,id₀m	cd₀m₀m	id₀m	40	38	36	Tr	Tr	0.0	•	•	5
Croydon	217	cz id₀m	em id₀m	em₀d₀	38	36	36	Tr	Tr	0.0	•	•	
Greenwich (Royal Observatory)	149	oid₀	oid₀	oid₀m	39	38	35	Tr	Tr	0.0	77	93	4
City (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park)	27	•	•	•	41	39	38	–	–	0.0	77	88	•
Regents Pk. (Botanic Gardens)‡	168	•	•	•	39	37	34	–	–	0.0	81	91	•
Camden Square	110	o	c	•	40	37	36	–	–	0.0	•	91	•
Kensington	80	cfc	co	•	40	37	36	–	Tr	0.0	81	86	•
Hampstead Observatory	450	o	o	od	37	33	33	–	Tr	0.0	•	95	•

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 13th

South Kensington Max.	Time.	Min.	Time.

Kew Observatory Max.	Time.	Min.	Time.
0.2	13h 12th	<0.1	1-6h 13th

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 12th. December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	7h. G.M.T. 13th. December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Night mm.
Paris	*	NNE	3	o	36	1020.5	NNE	2	o	34	*	34	*	–
Brussels														
Berlin														
Zürich														
Rome	1006.0	N	5	bc	46	1010.3	NE	3	c	41	•	•	–	–

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 —Code for surface visibility.

Code		Objects not visible at
0	Dense fog	55 yards.
1	Thick fog	220 ,,
2	Fog	550 ,,
3	Moderate fog	1,100 ,,
4	Mist or haze	1½ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6¼ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30 —Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

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AIR MINISTRY.

THE DAILY WEATHER REPORT
OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Thursday 14th December 1939.

No. 28,511.

OBSERVATIONS at 13h. G.M.T. 13th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Med. (10)	High (11)	Amount Low 0–10 (12)	Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1022.4	-16	NE	3	zo	39	85	4	5	-	-	10	10	1500
	Croydon	1022.5	-12	NE	2	ido	38	97	4	5	-	-	9	10	450
	S. Farnborough	1022.7	-14	N'E	2	dodo	38	97	4	5	-	-	10	10	800
	Boscombe Down	1022.8	-18	NNE	2	zo	38	85	6	5	-	-	10	10	1500
	Calshot (Soton.)	1022.3	-14	NNE	2	zo	40	85	6	5	-	-	10	10	800
	Lympne ...	1021.8	-14	NE'N	2	dr	37	92	5	-	2	-	10	10	800
	Manston ...	1022.0	-14	E'N	3	ido	39	92	6	6	-	-	10	10	1500
2	Shoeburyness ...	1022.2	-14	NE'N	3	c	39	85	7	5	-	-	10	10	1500
	Felixstowe ...	1022.3	-12	NE	3	c	40	75	7	5	-	-	10	10	2500
	Gorleston ...	1023.3	-10	ENE	3	c	40	75	6	5	-	-	10	10	2500
	Mildenhall ...	1023.2	-16	N	1	c	39	85	7	5	-	-	10	10	2500
	Cranwell ...	1023.7	-18	-	0	zo	39	97	6	5	-	-	10	10	450
3	Birmingham	1023.3	-18	NNE	1	f	39	75	3	5	-	-	10	10	1500
	Upper Heyford	1023.7	-16	E	1	ido	38	92	7	5	-	-	10	10	800
4	Ross-on-Wye ...	1023.2	-20	NW'W	2	zo	37	75	6	5	-	-	10	10	1500
5	Hartland Point	1023.6	-20	SE	2	c	37	85	7	5	2	-	9	10	2500
	Bristol	1024.0	-19	N'E	2	m	37	85	4	5	-	-	10	10	2500
	Portland Bill ...	1022.5	-18	NNE	3	c	40	92	8	4	4	-	7-8	10	4000
	Plymouth ...	1023.4	-22	N'E	1	c	40	65	8	5	-	-	9+	9+	2500
	The Lizard ...	1023.4	+12	N'E	2	c	38	92	7	5	-	-	10	10	1500
	Scilly (St. Mary's)	1023.0	-14	NE'E	3	c	42	75	6	5	3	-	4-6	7-8	2500
	Guernsey ...	1021.1	-12	N	1	ido	43	85	7	5	2	-	7-8	10	1500
6	Pembroke ...	1023.4	-20	SE	2	c	39	85	6	5	-	-	9+	9+	2500
7	Holyhead ...	1023.3	-18	SSE	4	c	39	75	7	5	2	-	9+	10	2500
	Chester (Sealand)	1023.8	-28	-	0	zo	39	75	5	5	-	-	10	10	2500
8	Manchester ...	1023.8	-26	W'N	2	zo	38	85	5	5	-	-	9+	9+	2500
10	Spurn Head ...	1023.6	-12	ESE	2	c	41	75	7	5	-	-	10	10	1500
	Catterick ...	1023.4	-28	-	0	iro	40	85	6	5	-	-	9	9	4000
	Tynemouth ...	1023.8	-24	SW	2	f	41	92	3	5	-	-	10	10	1500
11	St. Abbs Head	1022.4	-24	SSE	3	c	40	85	8	5	6	-	7-8	10	2500
	Leuchars ...	1021.5	-30	SSW	2	c	40	75	7	5	-	-	9+	9+	2500
12	Renfrew (Abbots I.)	1020.6	-34	SSE	4	zo	41	75	6	5	-	-	10	10	4000
	Eskdalemuir ...	1021.8	-28	SSW	3	c	37	85	6	5	-	-	10	10	1500
	Point of Ayre ...	1021.9	-26	SSW	3	c	41	75	8	5	-	-	9+	9+	4000
13A	Tiree	1013.8	-36	SSE	6	ido	44	92	6	-	2	-	10	10	1500
13B	Stornoway ...	1010.4	-26	S	9	ddo	44	85	6	6	-	-	10	10	800
15	Dalwhinnie ...	1019.2	-38	S	4	c	35	75	6	5	7	-	7-8	10	2500
	Aberdeen ...	1020.2	-30	S	4	c	39	75	6	5	-	1	7-8	7-8	2500
	Wick	1015.5	-32	SSE	6	bcq	41	75	8	5	4	2	2-3	4-6	2500
16	Lerwick... ...	1015.1	-36	S	8	c	44	85	7	8	7	-	7-8	10	800
17	Blacksod Point..	1015.0	-36	SSW	4	c	48	85	8	8	-	-	10	10	800
18	Malin Head ...	1015.2	-56	S'E	5	zo	42	85	7	5	-	-	9	9	2500
	Aldergrove ...	1019.9	-34	S	3	zo	40	75	6	5	-	-	10	10	2500
19	Birr Castle ...	1020.5	-24	SSE	2	c	41	85	7	5	-	-	10	10	2500
20	Valentia Obsy. †	1020.2	-30	SSW	4	c	50	85	8	5	2	-	4-6	10	1500
	Roches Point ...	1022.2	-22	SW	3	iro	46	85	7	6	2	-	7-8	9+	1500

OBSERVATIONS at 18h. G.M.T. 13th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. (20)	Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Med. (24)	High (25)	Amount Low 0–10 (26)	Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1020.3	-12	NE	2	zo	39	75	5	5	-	-	10	10	1500	1	*
Croydon	1020.6	-10	NE'E	1	m	38	85	4	5	-	-	10	10	1500	1	*
S. Farnborough	1020.1	-14	NE'N	1	zo	37	92	5	5	-	-	10	10	2500	1	*
Boscombe Down	1020.2	-10	-	0	zo	37	92	5	5	-	-	10	10	1500	0	*
Calshot (Soton.)	1020.0	-10	NE'N	1	c/d	40	92	4	5	-	-	10	10	800	1	1
Lympne	1019.9	-10	NE'N	2	ido	37	92	6	5	-	-	10	10	1500	1	§ 2
Manston	1019.7	-10	E'S	1	ido	38	85	6	5	-	-	10	10	1500	1	*
Shoeburyness	1020.3	-8	NE	1	c	38	85	6	5	-	-	10	10	1500	1	*
Felixstowe	1019.7	-12	N'E	3	zo	38	75	6	5	-	-	10	10	2500	1	1
Gorleston	1020.1	-6	NE'E	2	c	39	75	6	5	-	-	10	10	2500	0	2
Mildenhall	1020.3	+18	-	0	o	38	85	6	5	-	-	10	10	2500	1	*
Cranwell	1020.6	-14	-	0	zo	38	92	5	5	-	-	10	10	2500	1	*
Birmingham	1020.7	-16	S	2	c	37	85	5	5	-	-	10		1500	1	*
Upper Heyford	1021.2		-	0	zo	36		6	5	-		10	10	1500		*
Ross-on-Wye	1020.1	-14	S	1	zo	37	85	6	5	-	-	10	10	1500	1	*
Hartland Point	1020.2	-16	SSE	2	c	37	85	8	5	2	-	7-8	9+	2500	1	2
Bristol	1021.0	-12	-	0	zo	37	85	5	5	-	-	10	10	1500	1	*
Portland Bill	1020.0	-6	NNE	3	c	40	92	7	5	-	-	10	10	2500	1	2
Plymouth	1010.8	-12	ENE	1	m	38	75	4	5	-	-	10	10	2500	1	1
The Lizard	1020.7	-10	-	0	c	37	85	7	5	-	-	10	10	1500	0	1
Scilly (St. Mary's)	1020.2	-12	-	0	bc	38	85	6	5	-	-	2-3	2-3	2500	1	1
Guernsey	1019.2	-6	-	0	roro	43	92	6	8	-	-	10	10	800	1	3
Pembroke	1019.4	-16	S'W	4	c	42	75	7	5	-	-	9+	9+	2500	1	2
Holyhead	1018.1	·	SSE	4	c	39	75	7	5	-	-	10	10	1500	1	2
Chester (Sealand)	1019.7	-16	SE'S	1	m	39	85	4	5	-	-	10	10	2500	1	*
Manchester	1019.9	-14	SSE	1	zo	37	85	5	5	-	-	10	10	4000	1	*
Spurn Head	1020.2	-8	SE'S	2	o	40	75	7	5	-	-	10	10	1500	0	2
Catterick	1019.2	-18	SSE	1	zo	39	97	6	5	-	-	10	10	1500	1	*
Tynemouth	1019.7	-16	W	3	c	41	75	6	5	-	-	10	10	1500	1	2
St. Abbs Head	1017.0	-12	S	4	c	39	75	7	5	6	-	7-8	10	2500	0	2
Leuchars	1016.2	-26	SSE	4	zo	40	75	6	5	-	-	10	10	2500	1	*
Renfrew (Abbots I.)	1015.4	-26	S	2	ido	40	75	5	5	-	-	10	10	2500	1	*
Eskdalemuir	1016.9	-24	S	4	c	35	85	6	5	-	-	10	10	800	1	*
Point of Ayre	1016.9	-24	SSW	4	c	41	85	7	5	-	-	9+	9+	2500	0	3
Tiree	1007.9	-24	SSE	6	rr	44	97	6	-	2	-	10	10	1500	1	5
Stornoway	1005.4	-12	S	8	roro	46	85	5	6	-	-	10	10	1500	1	4
Dalwhinnie	1013.2	-26	S	5	S	34	92	5	6	-	-	10	10	1500	1	*
Aberdeen	1016.0	-22	SSW	3	c	40	75	6	5	-	-	10	10	2500	1	1
Wick	1011.0	-18	SSE	8	c	41	75	7	5	7	2	4-6	9	2500	1	3
Lerwick	1010.4	-16	S	8	c	44	75	7	5	7	-	7-8	10	800	1	*
Blacksod Point	1007.1	-44	S	6	rr	47	97	7	6	-	-	10	10	<150	2	4
Malin Head																
Aldergrove	1013.5	-34	S'E	4	e	41	85	7	5	-	-	10	10	1500	1	*
Birr Castle	1013.8	-36	SSE	1	iro	43	92	7	5	-	-	10	10	2500	1	*
Valentia Obsy. †	1013.4	-42	SSW	4	rr	47	92	6	6	-	-	10	10	800	1	3
Roches Point	1015.9	-38	SSW	5	iro	48	92	7	6	2	-	7-8	9+	1500	1	3

PAST 24 HOURS.

Stations	Weather 7h.–13h. 13th (37)	13h.–18h. 13th (38)	18h. 13th to 1h. 14th (39)	1h.–7h. 14th (40)
London (Kew)	cidomocm	cmc	czo	cmo
Croydon	comodf	cidomzm	cmmdodo	cdodomo
S. Farnborough	dodomc	dodomc	cmo	cmomymc
Boscombe Down	omo	m	omo	cmomo
Calshot (Soton.)	idocmo	moidofcm	cmmo	cmo
Lympne	omrodo	omrodod	omiddoro	omdrido
Manston	dodoido	cidomo	dododd	ddcmo
Shoeburyness	iroc	cmo	roSoc	roSoc
Felixstowe	oiromoo	omo	omirodod	dodoDido
Gorleston	c	c	c	c
Mildenhall	cidocmocc	o	omoido	ocddom
Cranwell	iroSododo	cmo	cmomomo	omomcm
Birmingham	omf	fmo	o	oc
Upper Heyford	cmocido	cmo	cmo	cmo
Ross-on-Wye	omo	omo	omo	omocm
Hartland Point	c	c	cbcc	oroc
Bristol	cmofm	cmfemmo	cmo	cmowbc
Portland Bill	c	co	o	orrc
Plymouth	ozo	cmom	ommoc	cirozomo
The Lizard	c	c	bcc	rrprc
Scilly (St. Mary's)	c	cbc	cid	odrrc
Guernsey	cido	cdorr	croid	idcrr
Pembroke	cmo	c	c	crro
Holyhead	c	c	c	c
Chester (Sealand)	cmo	cmocm	cmbcmo	bccmom
Manchester	cmfmmo	cmommo	cmo	cmoro
Spurn Head	ciro	o	o	cido
Catterick	moidoro	rodocmo	cmo	cmido
Tynemouth	off	offo	o	o
St. Abbs Head	c	c	bc	bbcc
Leuchars	c	cmo	bcc	cbc
Renfrew (Abbots I.)	cmo	cmoido	czoidozo	cmirororo
Eskdalemuir	ecmo	cmo	cmo	cmo
Point of Ayre	c	c	c	c
Tiree	oido	oidrr	·	
Stornoway	cdd	crorom	crr	croro
Dalwhinnie	c	csrs	**	csrs
Aberdeen	bczoc	czo	czo	cbcc
Wick	bcq	beqc	cq	eqc
Lerwick	cpr	c	cmo	cmo
Blacksod Point	c	rrq	bc	bc
Malin Head	zo		croc	cprobc
Aldergrove	cmoczoozo	ozidomoc	crororidrr	crrmo
Birr Castle	o	oib	orr	oir
Valentia Obsy. †	cmoidoc	Drr	rrrorprbc	bcbyprobc
Roches Point	ciro	ciro	rr	cir

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_o, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_o/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). ↗ gale.
⊕ Solar halo. ⦶ lunar halo. Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

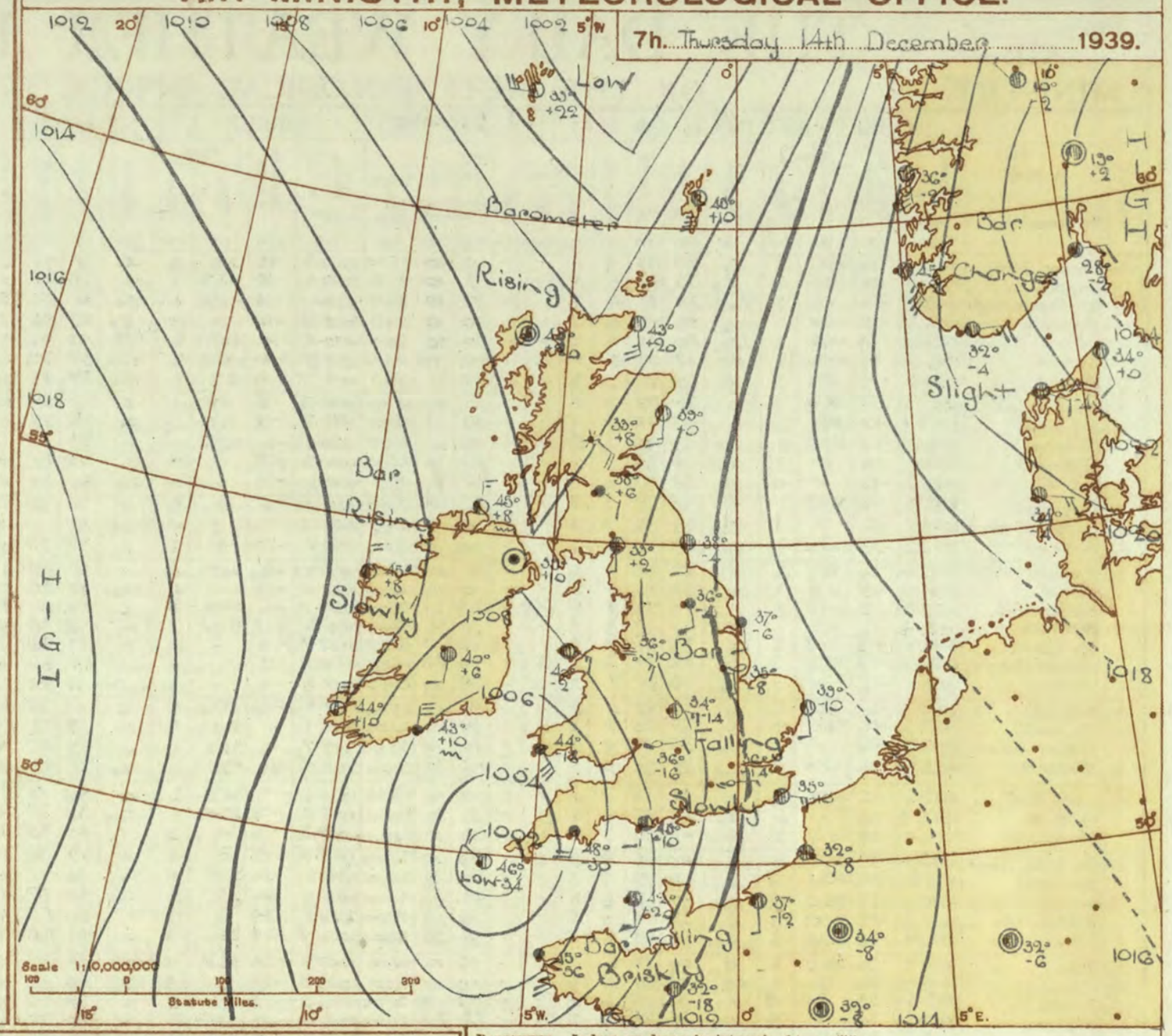
Cloud form abbreviations:— Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

AIR MINISTRY, METEOROLOGICAL OFFICE.



DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 14th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ...	Light to moderate east to northeast winds; cloudy with occasional drizzle; rather cold.
4 W. Midlands ... 5 S.W. England 6 South Wales ... 7 North Wales ...	Light to moderate easterly winds; cloudy with occasional rain at first and local drizzle later; rather cold.
8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Light southeast to variable wind; cloudy with occasional rain at first; rather low to average temperature.
13 A. W. Scotld. / B.N.W.Scotland.	Light variable wind; cloudy with occasional rain at first; average temperature.
14 Mid Scotland 15 N. E. Scotland	
16 Orkneys and Shetlands	Strong southerly wind moderating rapidly and veering; cloudy with occasional rain at first; average temperature.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Moderate to fresh northerly wind veering and moderating; mainly cloudy with local rain at first; average temperature.

BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

A depression centred over the Scilly Isles will move away south-south-east without affecting Eastern England and a ridge of high pressure will develop from the Atlantic over Scotland to the Baltic. Winds will become variable in the North and east to northeast in the South and weather will be cloudy with occasional rain or drizzle.

FURTHER OUTLOOK.

East to northeast winds in Southern districts and mainly cloudy generally.

Cone hoisted at Shetland still flying.

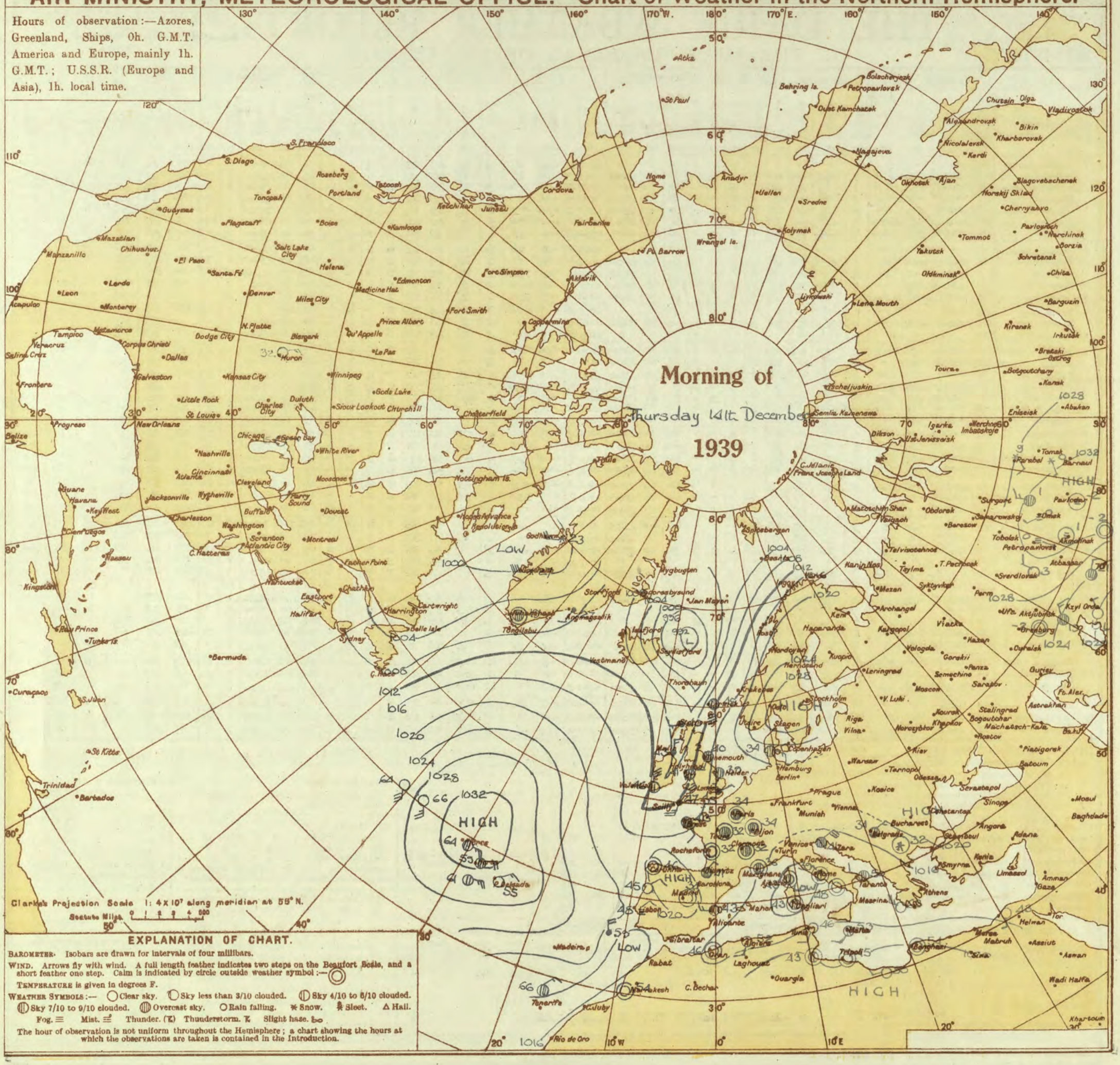
Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

Hours of observation :—Azores, Greenland, Ships, 0h. G.M.T. America and Europe, mainly 1h. G.M.T.; U.S.S.R. (Europe and Asia), 1h. local time.



EXPLANATION OF CHART.

BAROMETER. Isobars are drawn for intervals of four millibars.

WIND. Arrows fly with wind. A full length feather indicates two steps on the Beaufort Scale, and a short feather one step. Calm is indicated by circle outside weather symbol :—

TEMPERATURE is given in degrees F.

WEATHER SYMBOLS :— Clear sky. Sky less than 3/10 clouded. Sky 4/10 to 6/10 clouded. Sky 7/10 to 9/10 clouded. Overcast sky. Rain falling. Snow. Sleet. Hail. Fog. Mist. Thunder. Thunderstorm. Slight haze.

The hour of observation is not uniform throughout the Hemisphere; a chart showing the hours at which the observations are taken is contained in the Introduction.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Thursday 14th December 1939.

No. 28511.

OBSERVATIONS at 1 hr. G.M.T. 14th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1017·1	−18	E'N	1	d.d.	35	97	5	–	2	–	10	10	1500
	S. Farnborough	226	1016·3	−18	E'N	1	Zo	36	85	5	5	–	–	10	10	2500
	Boscombe Down	417	1015·9	−22	E'S	1	Zo	35	92	6	5	–	–	9+	9+	2500
	Calshot (Sthmtn.)	8	1015·9	−18	E'N	2	Zo	39	85	5	5	–	–	10	10	2500
	Lympne ...	346	1016·5	−20	SW'W	1	dr	36	92	5	–	2	–	10	10	800
	Manston ...	154	1016·6	−14	SSW	2	dd	37	92	4	6	–	–	10	10	450
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1016·5	−14	N	1	d.d.	37	97	6	5	–	–	10	10	2500
	Gorleston ...	5	1016·6	−16	E'S	3	c	40	75	7	5	–	–	10	10	2500
	Mildenhall ...	19	1016·3	−22	–	0	o/r	36	92	7	5	–	–	10	10	2500
	Cranwell ...	240	1016·6	+14	S'W	1	Zo	37	92	5	5	–	–	10	10	1500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1016·9	−18	–	0	Zo	35	85	6	5	–	–	10	10	1500
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1012·0	−36	SSE	3	c	36	92	7	5	–	–	9	9	1500
	Bristol ...	209	1015·5	−30	–	0	Zo	37	92	5	5	–	–	10	10	2500
	Portland Bill ...	32	1014·5	−30	ENE	3	o	42	92	7	5	–	–	10	10	2500
	Plymouth ...	82	1013·7	−38	ESE	2	Zo	39	85	6	5	–	–	9	9	2500
	The Lizard ...	240	1012·9	−30	SSE	4	c	45	85	7	8	2	–	9	10	1500
	Scilly (St. Mary's)	163	1010·4	−28	S'W	5	dd	47	92	6	5	–	–	10	10	1500
	Guernsey ...	175	1014·7	−22	S	1	id	42	85	6	8	–	–	10	10	1500
6	Pembroke ...	142	1010·3	−28	S'W	4	c	43	85	7	8	–	–	9+	9+	2500
7	Holyhead ...	26	1011·4	−20	SSE	5	c	41	75	7	5	2	–	4-6	10	1500
	Chester (Sealand)	16	1014·8	−22	SSE	3	Zo	35	85	5	5	–	–	2-3	2-3	2500
8	Manchester ...	70	1015·5	−18	S'E	2	Zo	37	85	6	5	–	–	10	10	2500
10	Spurn Head ...	29	1016·2	−16	SSW	3	o	39	75	7	5	–	–	10	10	1500
	Catterick ...	175	1015·1	−14	S	2	Zo	37	85	5	5	–	–	10	10	1500
	Tynemouth ...	108	1015·6	−12	SSW	3	o	40	85	6	5	–	–	10	10	1500
11	St. Abbs Head	280	1012·4	−20	S	5	bc	36	85	8	4	–	–	4-6	4-6	2500
	Leuchars ...	36	1012·7	−8	SE	3	c	38	85	7	5	–	–	10	10	4000
12	Renfrew (Abbots I.)	19	1011·2	−14	SE	3	Zo	40	75	6	5	2	–	9	10	2500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1011·3	−22	S'W	5	ir	42	85	7	8	1	–	9	10	2500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1006·6	−28	W	2	rr	40	92	6	5	2	–	9	10	1500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1007·9	−12	SSE	8	cq	43	85	7	5	1	–	4-6	7-8	1500
16	Lerwick ...	156	1008·5	−4	S	8	c	45	75	6	8	2	–	7-8	10	800
17	Blacksod Point	18	1010·3	+14	N'W	4	bc	44	75	8	9	–	–	4-6	4-6	800
18	Malin Head ...	84	1007·8	+20	N	3	rr	43	85	6	9	–	–	9+	9+	2500
	Aldergrove ...	268	1008·6	−18	S	3	rr	42	92	6	6	2	–	4-6	10	1500
19	Birr Castle ...	173	1007·0	−10	S	3	rr	43	92	7	6	–	–	10	10	1500
20	Valentia Obsy.	30	1011·1	+10	N	6	bc/r	46	65	8	8	–	–	2-3	2-3	2500
	Roches Point	22	1007·0	−28	WNW	5	rr	46	92	7	6	2	–	7-8	10	800

OBSERVATIONS at 7 hr. G.M.T. 14th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
1	London (Kew)	1012·9	−14	E	3	Zo	37	92	6	5	–	–	10	10	1500	1	*
	Croydon ...	1013·8	−14	E	1	Zo	36	97	5	–	2	–	10	10	450	1	*
	S. Farnborough	1012·7	−14	E'N	3	Zo	36	92	6	5	–	–	10	10	800	1	*
	Boscombe Down	1011·8	−14	E	3	Zo	35	92	6	5	–	–	9+	9+	2500	1	*
	Calshot (Sthmtn.)	1011·9	−14	E'N	3	Zo	39	92	6	5	–	–	10	10	2500	1	1
	Lympne ...	1015·1	−10	ESE	3	c	35	85	6	5	–	–	10	10	1500	1	§2
	Manston ...	1014·2	−10	SE	1	Zo	37	85	5	5	2	–	9+	10	1500	1	*
2	Shoeburyness ...	1014·2	−8	SE	3	c	38	85	6	5	–	–	10	10	1500	1	*
	Felixstowe ...	1013·9	−10	S	2	id.	39	85	6	5	2	–	7-8	10	1500	1	2
	Gorleston ...	1014·4	−10	SSE	2	Zo	39	85	6	5	–	–	10	10	2500	0	2
	Mildenhall ...	1013·8	−10	E'N	2	Zo	36	97	5	5	–	–	10	10	800	1	*
	Cranwell ...	1014·0	−8	SSE	1	Zo	35	92	6	5	–	–	10	10	1500	0	*
3	Birmingham ...	1011·4	−14	ESE	3	bc	34	85	6	–	7	–	0	4-6	–	1	*
	Upper Heyford	1013·6	−10	–	0	Zo	34	92	5	5	–	–	10	10	800	1	*
4	Ross-on-Wye	1011·5	−16	E'N	2	Zo	36	85	5	5	–	–	9+	9+	1500	1	*
5	Hartland Point	1006·4	−24	ESE	3	c	41	92	7	6	2	–	7-8	10	1500	1	2
	Bristol ...	1011·0	−18	S	2	m	34	97	4	5	3	–	4-6	4-6	1500	1	*
	Portland Bill ...	1009·1	−10	SSW	3	c	45	92	7	5	–	–	10	10	2500	1	3
	Plymouth ...	1007·5	−30	SSW	4	ir.	48	85	6	6	2	–	7-8	10	1500	1	2
	The Lizard ...	1004·0	−40	S	6	c/r	46	92	7	8	2	–	7-8	10	1500	1	3
	Scilly (St. Mary's)	1002·0	−34	NW	2	c/r	46	92	8	8	6	–	4-6	7-8	1500	1	2
	Guernsey ...	1001·3	−20	S'E	2	c	42	85	6	8	–	–	10	10	1500	1	3
6	Pembroke ...	1006·3	−18	SE	6	rr	44	97	6	8	–	–	10	10	1500	1	3
7	Holyhead ...	1009·5	−2	ESE	3	c	40	75	7	5	–	–	9	9	2500	1	2
	Chester (Sealand)	1011·7	−10	SE	3	m	36	85	4	5	–	–	10	10	1500	1	*
8	Manchester ...	1012·4	−10	E'S	2	Zo	36	85	6	5	–	–	Tr	Tr	1500	1	*
10	Spurn Head ...	1014·4	−6	S'E	2	id.	37	92	6	5	–	–	10	10	1500	1	2
	Catterick ...	1013·2	−4	SSE	2	id.	36	92	6	5	–	–	10	10	800	1	*
	Tynemouth ...	1013·8	−4	S	3	o	38	85	6	5	–	–	10	10	1500	1	2
11	St. Abbs Head	1013·2	0	S	2	c	35	85	7	8	6	–	4-6	7-8	2500	0	2
	Leuchars ...	1011·6	+2	–	0	c	37	85	7	5	–	–	7-8	7-8	4000	1	*
12	Renfrew (Abbots I.)	1011·4	+6	SE'E	2	ir.	38	85	6	5	–	–	10	10	1500	1	*
	Eskdalemuir ...	1012·0	+2	S	1	c	33	85	5	5	–	–	10	10	800	1	*
	Point of Ayre ...	1010·4	+2	S'E	5	ir.	40	85	7	8	1	–	7-8	10	1500	1	3
13A	Tiree	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	1009·6	+20	–	0	c/r	40	85	6	5	2	–	9	10	2500	1	0
15	Dalwhinnie ...	1011·1	+8	SE	4	is	33	92	5	6	–	–	10	10	1500	4	*
	Aberdeen ...	1011·8	0	S	3	c	39	75	6	5	–	–	7-8	7-8	2500	0	1
	Wick ...	1009·2	+20	SSE	5	c	43	75	7	5	2	–	7-8	10	1500	1	3
16	Lerwick ...	1009·6	+10	S	8	c	45	75	6	8	2	–	7-8	10	800	1	*
17	Blacksod Point	1013·0	+8	N'W	4	bc	45	65	8	3	–	–	4-6	4-6	1500	1	4
18	Malin Head ...	1010·0	+8	N	3	bc	45	65	6	2	–	–	4-6	4-6	2500	1	4
	Aldergrove ...	1010·3	+10	–	0	rr	39	92	6	5	–	–	10	10	1500	2	*
19	Birr Castle ...	1010·6	+6	S	2	o/r	40	85	7	5	–	–	10	10	2500	1	*
20	Valentia Obsy.	1012·4	+10	N	6	bc/r	44	65	8	3	–	–	2-3	2-3	2500	1	4
	Roches Point	1007·9	+10	N	6	ir	43	85	8	6	2	–	7-8	9+	1500	1	4

PAST 24 HOURS.

District	Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Temperature Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 13h. Hrs. (36)
1	London (Kew)	40	36	35	Tr	–	0·0
	Croydon ...	39	35	35	0·1	0·2	0·0
	S. Farnborough	39	35	35	0·1	–	0·0
	Boscombe Down	38	34	32	–	–	0·0
	Calshot (Sthmtn.)	41	38	36	Tr	–	0·0
	Lympne ...	39	35	35	2	5	0·0
	Manston ...	41	35	35	0·2	1	0·0
2	Shoeburyness ...	41	36	36	Tr	1	0·0
	Felixstowe ...	41	(37)	38	Tr	1	0·0
	Gorleston ...	40	38	39	–	–	*
	Mildenhall ...	40	35	34	Tr	0·1	0·0
	Cranwell ...	39	34	34	0·3	–	0·0
3	Birmingham ...	39	33	31	*	–	0·0
	Upper Heyford		33	33		–	*
4	Ross-on-Wye	37	35	33	–	–	0·0
5	Hartland Point	38	36	35	–	0·1	0·0
	Bristol ...	38	34	30	–	–	0·0
	Portland Bill ...	41	37	*	–	1	*
	Plymouth ...	40	38	36	–	0·1	0·1
	The Lizard ...	39	35	*	–	10	0·0
	Scilly (St. Mary's)	43	38	*	–	11	0·0
	Guernsey ...	44	41	40	2	3	0·0
6	Pembroke ...	42	40	*	–	7	0·0
7	Holyhead ...	40	38	36	–	–	0·0
	Chester (Sealand)	39	35	31	–	–	0·0
8	Manchester ...	38	35	30	–	Tr	0·0
10	Spurn Head ...	42	37	*	Tr	Tr	*
	Catterick ...	40	35	35	Tr	Tr	0·0
	Tynemouth ...	43	37	31	–	–	*
11	St. Abbs Head	40	34	*	–	–	*
	Leuchars ...	40	36	33	–	–	0·0
12	Renfrew (Abbots I.)	41	38	37	–	0·3	0·0
	Eskdalemuir ...	37	32	30	–	–	0·0
	Point of Ayre ...	42	39	*	–	Tr	0·0
13A	Tiree				4		
13B	Stornoway ...	46	39	*	1	3	0·0
15	Dalwhinnie ...	35	32	32	Tr	0·6	0·0
	Aberdeen ...	41	38	34	–	–	0·9
	Wick ...	43	41	*	–	–	*
16	Lerwick ...	45	42	*	Tr	–	0·0
17	Blacksod Point	49	40	*	10	10	*
18	Malin Head ...	44	40	*		7	0·0
	Aldergrove ...	41	38	38	Tr	17	0·0
19	Birr Castle ...	44	39	38	Tr	10	0·0
20	Valentia Obsy.	50	43	38	3	12	0·1
	Roches Point	48	42	*	0·1	13	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather Morning. (24 hrs. ended 9h.)	Weather Afternoon.	Weather Night.	Temperature Day Max. °F.	Temperature Night Min. °F.	Temperature Min. on Grass °F.	Rainfall Day. mm.	Rainfall Night. mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity 15h. G.M.T. % (Yesterday.)	Humidity 9h. G.M.T. % (To-day.)	Visibility 9h.
Kew ...	18	cidm.	cmc	czcm.	40	36	35	Tr	–	0·0	•	•	
Croydon ...	217	cmndf	idmzm	cddm.	39	35	35	0·1	0·2	0·0	•	•	
Greenwich (Royal Observatory) ...	149	o	o	odcm.	39	35	35	–	Tr	0·0	73	91	4
City (Bunhill Row) ...	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park) ...	27	•	•	•	41	37	37	–		0·0	69	88	•
Regents Pk. (Botanic Gardens)‡ ...	168	•	•	•	39	36	33	–	–	0·0	72	89	•
Camden Square ...	110	p	o	•	39	36	35	–	–	0·0	•	89	•
Kensington ...	80	pd.	o	•	40	36	35	Tr	–	0·0	86	74	•
Hampstead Observatory ...	450	o	o	o	37	34	33	–	–	0·0	•	98	•

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 14th

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations.	18h. G.M.T. 13th December. Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	7h. G.M.T. 14th December. Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris ...	1018·9	N	2	o	34	1015·1	–	0	o	34	36	34	–	–
Brussels ...														
Berlin ...														
Zürich ...														
Rome ...	1012·7	–	0	bc	46	1011·7	ESE	4	c	45	•	•	–	2

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 6, 22 — Code for surface visibility.

		Objects not visible at
0	Dense fog	55 yards.
1	Thick fog	220 ,,
2	Fog	550 ,,
3	Moderate fog	1,100 ,,
4	Mist or haze	1½ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6½ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

0	Calm.	5	Very rough.
1	Smooth.	6	High.
2	Slight.	7	Very high.
3	Moderate.	8	Preciptious.
4	Rough.	9	Confused.

TERMS OF SUBSCRIPTION. { Single Copies, 1d. each: by post 1½d. 2/6 per month; 6/6 per quarter; 25/- per year.

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N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Friday 15th December 1939.

No. 28,512

OBSERVATIONS at 13h. G.M.T. 14th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)														
	Croydon	1013.2	+2	ESE	2	zo	38	85	6	5	-	-	10	10	1500
	S. Farnborough	1012.2	-2	E'S	3	zo	40	85	6	5	-	-	10	10	1500
	Boscombe Down	1011.1	-6	E'S	2	zo	40	92	5	5	2	-	10	10	1500
	Calshot (Soton.)	1011.1	-2	S'E	3	c	48	75	7	5	-	-	9+	9+	4000
	Lympne	1014.2	-6	ESE	2	z	36	75	6	5	-	-	7-8	10	2500
	Manston	1013.5	-8	SE	2	zo	37	85	6	5	-	-	10	10	1500
2	Shoeburyness	1012.9	-2	SE	3	c	35	75	6	5	-	-	10	10	4000
	Felixstowe	1013.8	-4	SE'E	2	o/d	40	86	6	5	-	-	10	10	1500
	Gorleston	1014.2	-6	NE	4	c	41	85	6	5	-	-	10	10	2500
	Mildenhall	1013.5	-6	ESE	1	zo	39	85	6	5	-	-	9+	9+	2500
	Cranwell	1013.6	-2	SE	2	zo	38	97	6	5	-	-	10	10	2500
3	Birmingham	1012.7	0	SE	2	o	36	85	6	5	-	-	10	10	800
	Upper Heyford	1012.8	-2	E'S	1	m	37	85	4	5	-	-	10	10	450
4	Ross-on-Wye	1011.9	0	NE	3	zo	37	89	5	5	-	-	10	10	800
5	Hartland Point	1007.4	-8	NE	2	c	44	85	7	5	1	-	7-8	9	2500
	Bristol	1010.9	-2	E'S	2	iro	39	92	6	5	-	-	10	10	1500
	Portland Bill	1009.5	+4	S	4	c	45	92	7	5	-	-	10	10	4000
	Plymouth	1007.3	+6	SSE	3	iro	45	75	7	6	2	-	7-8	10	1500
	The Lizard	1003.9	+20	ESE	7	c	46	92	8	8	2	-	9	10	1500
	Scilly (St. Mary's)	1000.3	+8	E'S	5	bc	48	85	8	8	4	-	2-3	4-6	1500
	Guernsey	1008.8	-10	S'E	2	c	41	75	7	2	7	8	4-6	9+	2500
6	Pembroke	1008.6	+8	E'S	5	c	43	86	6	5	2	-	7-8	10	1500
7	Holyhead	1010.9	-6	N	1	c	42	75	7	5	2	-	7-8	9	2500
	Chester (Sealand)	1018.1	+6	SE'E	2	zo	38	85	6	5	-	-	10	10	1500
8	Manchester	1013.6	+2	SE'E	2	zo	37	86	5	5	-	-	10	10	2500
10	Spurn Head	1013.9	0	S'E	3	c	40	85	6	5	-	-	9+	9+	2500
	Catterick	1014.1	-2	S	1	zo	36	85	6	5	-	-	10	10	1500
	Tynemouth	1014.4	0	SW	3	o	38	75	8	5	-	-	10	10	1500
11	St. Abbs Head	1013.9	+6	S	3	c	36	92	6	5	6	-	7-8	9+	1500
	Leuchars	1013.3	+2	-	0	zo	39	85	6	5	2	-	4-6	10	2500
12	Renfrew (Abbots I.)	1013.5	+10	ESE	2	iroo	37	85	5	5	-	-	10	10	2500
	Eskdalemuir	1013.4	+2	SSE	3	o	33	75	6	5	-	-	10	10	800
	Point of Ayre	1012.4	+4	SSE	4	c	40	85	6	8	2	-	4-6	10	1500
13A	Tiree	1011.8	+2	-	0	c	42	85	8	8	3	-	4-6	7-8	1500
13B	Stornoway	1012.5	+12	NE	1	c	41	86	8	5	7	-	4-6	9	2500
15	Dalwhinnie	1012.2	+2	S	2	ss	34	92	5	6	-	-	10	10	1500
	Aberdeen	1013.2	+2	S	3	c	41	85	5	5	5	-	7-8	9+	1500
	Wick	1011.8	+6	SW	2	c	40	92	7	5	7	-	7-8	10	1500
16	Lerwick	1011.7	+4	S	8	c/r	44	92	7	8	2	-	7-8	10	800
17	Blacksod Point	1015.0	+8	N'W	4	bc	42	75	8	3	-	-	4-6	4-6	1500
18	Malin Head	1012.4	+12	N	3	c	45	65	8	5	-	-	9	9	5700
	Aldergrove	1012.6	+2	NW'W	1	c	41	92	7	8	2	-	2-3	10	2500
19	Birr Castle	1013.1	+4	WNW	1	c	41	85	7	5	1	-	7-8	10	2500
20	Valentia Obsy. †	1014.6	+8	N'E	5	bc/pr	43	75	9	3	-	-	2-3	2-3	2500
	Roches Point	1010.9	+16	N'E	6	pr	43	85	9	3	-	-	7-8	7-8	1500

OBSERVATIONS at 18h. G.M.T. 14th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	°F. Temp. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
1	London (Kew)	1014.0	+10	ESE	2	m	39	75	4	5	-	-	10	10	2500	1	*
	Croydon	1014.1	+10	E	1	zo	37	85	6	5	-	-	10	10	4000	1	*
	S. Farnborough	1013.8	+8	ENE	2	of	37	92	3	5	-	-	10	10	2500	1	*
	Boscombe Down	1012.8	+14	E'N	3	z	38	92	6	5	-	-	4-6	4-6	1500	1	*
	Calshot (Soton.)	1012.4	+10	ENE	3	iro	40	92	6	5	-	-	10	10	1500	1	2
	Lympne	1014.7	+8	NE'E	2	zo	35	75	5	5	2	-	9	10	1500	1	§2
	Manston																*
2	Shoeburyness	1014.3	+2	SE	1	c	37	85	6	5	-	-	10	10	1500	1	*
	Felixstowe	1014.1	+6	E	2	zo	40	75	6	5	-	-	10	10	2500	1	2
	Gorleston	1015.0	+4	NE'E	3	c	39	75	6	5	-	-	10	10	2500	0	2
	Mildenhall	1014.8	+14	E'N	2	zo	38	97	5	5	-	-	10	10	4000	1	*
	Cranwell	1014.9	+6	-	0	m	37	97	4	5	-	-	10	10	4000	0	*
3	Birmingham	1014.2	+8	E	2	o	37	85	6	5	-	-	10	10	800	1	*
	Upper Heyford	1014.3	+12	ESE	1	m	37	92	4	5	-	-	10	10	1500	1	*
4	Ross-on-Wye	1013.3	+10	ENE	2	ido	38	92	4	5	-	-	10	10	450	1	*
5	Hartland Point	1010.7	+22	ENE	3	c	43	85	7	5	-	-	7-8	7-8	1500	1	2
	Bristol	1013.0	+18	E	2	zo	40	92	5	5	7	-	7-8	10	1500	1	*
	Portland Bill	1012.1	+16	SE	4	c	43	92	7	5	-	-	10	10	4000	1	3
	Plymouth	1010.5	+26	ESE	2	zo	43	75	6	5	4	-	4-6	4-6	2500	1	3
	The Lizard	1008.7	+16	E	5	PR	44	92	7	8	2	-	9	10	1500	1	3
	Scilly (St. Mary's)	1007.8	+12	ENE	5	c/pr	46	92	7	8	6	-	7-8	10	1500	1	3
	Guernsey	1010.3	+8	ESE	2	c	39	75	7	8	-	-	7-8	7-8	2500	1	3
6	Pembroke	1013.2	+20	E'S	4	c	41	92	6	5	-	-	9+	9+	1500	1	2
7	Holyhead	1012.0	+6	N'E	3	c	43	75	7	5	2	-	9	10	2500	1	2
	Chester (Sealand)	1014.3	+12	SE'E	1	m	38	85	4	5	-	-	10	10	2500	1	*
8	Manchester	1014.6	+8	E'S	2	m	38	85	4	5	-	-	9	10	2500	1	*
10	Spurn Head	1015.2	+6	-	0	iro	40	85	6	5	-	-	10	10	1500	0	1
	Catterick	1015.6	+14	-	0	z	36	85	6	5	-	-	10	10	2500	1	*
	Tynemouth	1015.8	+8	SSW	1	o	39	75	5	5	-	-	10	10	1500	1	1
11	St. Abbs Head	1015.2	+10	-	0	bc	35	85	7	4	-	-	4-6	4-6	1500	0	2
	Leuchars	1015.0	+10	SE	2	zop	36	92	5	5	-	-	7-8	7-8	2500	1	*
12	Renfrew (Abbots I.)	1014.9	+10	-	0	of	38	92	3	5	-	-	10	10	1500	1	*
	Eskdalemuir	1015.1	+8	-	0	c	33	83	6	5	-	-	10	10	800	1	*
	Point of Ayre	1013.8	+2	SSE	3	c	40	85	6	5	-	-	7-8	7-8	1500	0	2
13A	Tiree	1013.3	+8	-	0	bc	38	92	8	5	3	-	2-3	2-3	4000	0	2
13B	Stornoway	1014.8	+12	WNW	2	c	38	92	7	5	7	-	4-6	7-8	2500	1	1
15	Dalwhinnie	*	+6	S	2	s	34	92	5	4	2	-	4-6	10	1500	1	*
	Aberdeen	1015.0	+8	SSW	2	bc	39	85	6	5	-	-	2-3	2-3	2500	1	1
	Wick	1013.1	+6	SW	3	c	39	97	7	5	7	-	9	10	1500	1	1
16	Lerwick	1012.5	+8	SSW	6	roro	43	85	7	8	7	-	4-6	9	1500	1	*
17	Blacksod Point	1016.1	+10	N	3	bc	42	65	8	3	-	-	4-6	4-6	1500	0	2
18	Malin Head	1013.6	+16	S	1	c	38	85	8	2	7	-	4-6	7-8	1500	0	3
	Aldergrove	1014.2	+12	-	0	zo	39	92	6	8	7	-	2-3	10	2500	1	*
19	Birr Castle	1014.6	+14	WNW	7	c	40	85	7	5	1	-	7-8	9+	2500	1	*
20	Valentia Obsy. †	1015.6	+10	NNE	5	bc/pr	44	65	9	3	-	-	2-3	2-3	2500	1	4
	Roches Point	1013.9	+20	N'E	4	roro	40	85	8	6	2	-	7-8	10	1500	1	3

PAST 24 HOURS. — WEATHER.

District	Stations	7h.—13h. 14th (37)	13h.—18h. 14th (38)	18h. 14th to 1h. 15th (39)	1h.—7h. 15th (40)
1	London (Kew)		om oz	omddo	docmo
	Croydon	cmo	cmo	cmroddm	dodcmmo
	S. Farnborough	moc	idmdfe	dfdmoc	cmcmo
	Boscombe Down	omroro	cmo	cmomo	omo
	Calshot (Soton.)	idsoc	crriro	roroсmo	rodoidmo
	Lympne	omoz	oz	ozidomid	omoidoz
	Manston	cmo		cmddo	dodoido
2	Shoeburyness	moc	cmiroc	cmododo	dodomc
	Felixstowe	oidom	om	oidmo	oiroido
	Gorleston	c	c	c	c
	Mildenhall	cmoem	cmoom	idomem	cidoidm
	Cranwell	cmomm	cmom	cmciddodo	cdodcidm
3	Birmingham	bco	o	oc	c
	Upper Heyford	cmcm	cm	cmo	cmmo
4	Ross-on-Wye	cmom	omo	om	om
5	Hartland Point	csc	cbcc	cbc	bcc
	Bristol	bcmxmiro	crocmo	cmom	cmo
	Portland Bill	c	c	co	oid
	Plymouth	ciroro	cirocmo	cmiroc	c
	The Lizard	preq	cpr	bcc	cprc
	Scilly (St. Mary's)	cqpobc	bcepo	cpobc	bcc
	Guernsey	c	c	cbc	bcc
6	Pembroke	oirmo	cmo	cmo	c
7	Holyhead	c	c	c	c
	Chester (Sealand)	cmcmo	cmom	cmfbcmo	bcmbmf
8	Manchester	bmo,cm	cmom	cmmo	cmo
10	Spurn Head	c	o	ido	ido
	Catterick	omo	cmo	cmo	cmomo
	Tynemouth	omo	o	o	oiroo
11	St. Abbs Head	cmo	cmobc	bbcc	c
	Leuchars	bccmo	cmmo	cmoxbc	bcmoxcm
12	Renfrew (Abbots I.)	cmiroroo	ciroffdo	offm	ommmo
	Eskdalemuir	coz	oz	pzomo	omoro
	Point of Ayre	cz	cz	c	cido
13A	Tiree	cpro	cbc	bcb	bcc
13B	Stornoway	cpr	cpr	cpro	cproppr
15	Dalwhinnie	css	csssrs	* •	csrsc
	Aberdeen	czcz	cbcb	bczc	ccro
	Wick	c	c	c	cbcb
16	Lerwick	cir (gale)	cir	cir	cir
17	Blacksod Point	bc	probc	b	b
18	Malin Head	qjpvc	cproc	cbc	bcc
	Aldergrove	rrddoc	cmo	cmoiro	cmoido
19	Birr Castle	c	c	c	cpr
20	Valentia Obsy. †	proqphopr	bcyprbc	bcbW	bwbxbcx
	Roches Point	cpro	roro	romr	rr

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_o, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_o/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.

q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). ⸗ gale.
⊕ Solar halo. Ⓛ lunar halo. ⌂ Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.

An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.

"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.

"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:— Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

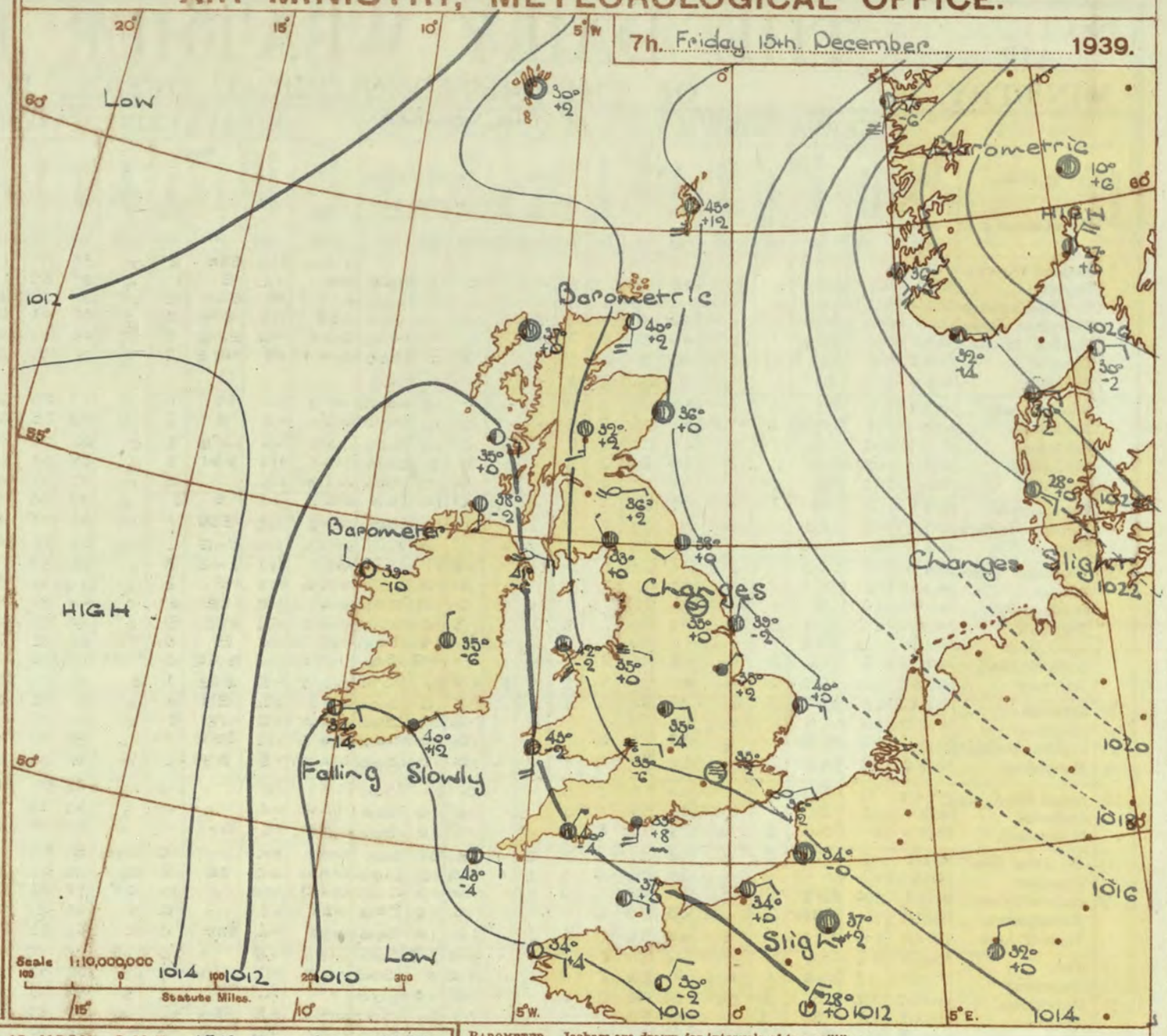
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

Note.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Friday 15th. December 1939.



BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 15th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Light east or southeast wind; dull, slight local rain; rather cold.
5 S.W. England 6 South Wales ... 7 North Wales ...	Light or moderate southeast wind; mainly cloudy, but bright periods locally; rather cold.
8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	As 1 - 4.
13 A. W. Scotld. B.N.W.Scotland. 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Freshening southerly wind, strong locally tomorrow; mainly cloudy, slight local rain; rather cold.
17 N. W. Ireland	Wind light variable, then south freshening; fair at first, probably rain later; local fog; rather cold.
18 N. E. Ireland	
19 S. E. Ireland	As 1 - 4.
20 S. W. Ireland	As 17.

GENERAL INFERENCE.

Anticyclones are situated over Scandinavia and to the north of the Azores and a belt of relatively low pressure from Iceland across Ireland to the Mediterranean is tending to develop again. Weather will be mainly dull and rather cold with local drizzle.

FURTHER OUTLOOK.

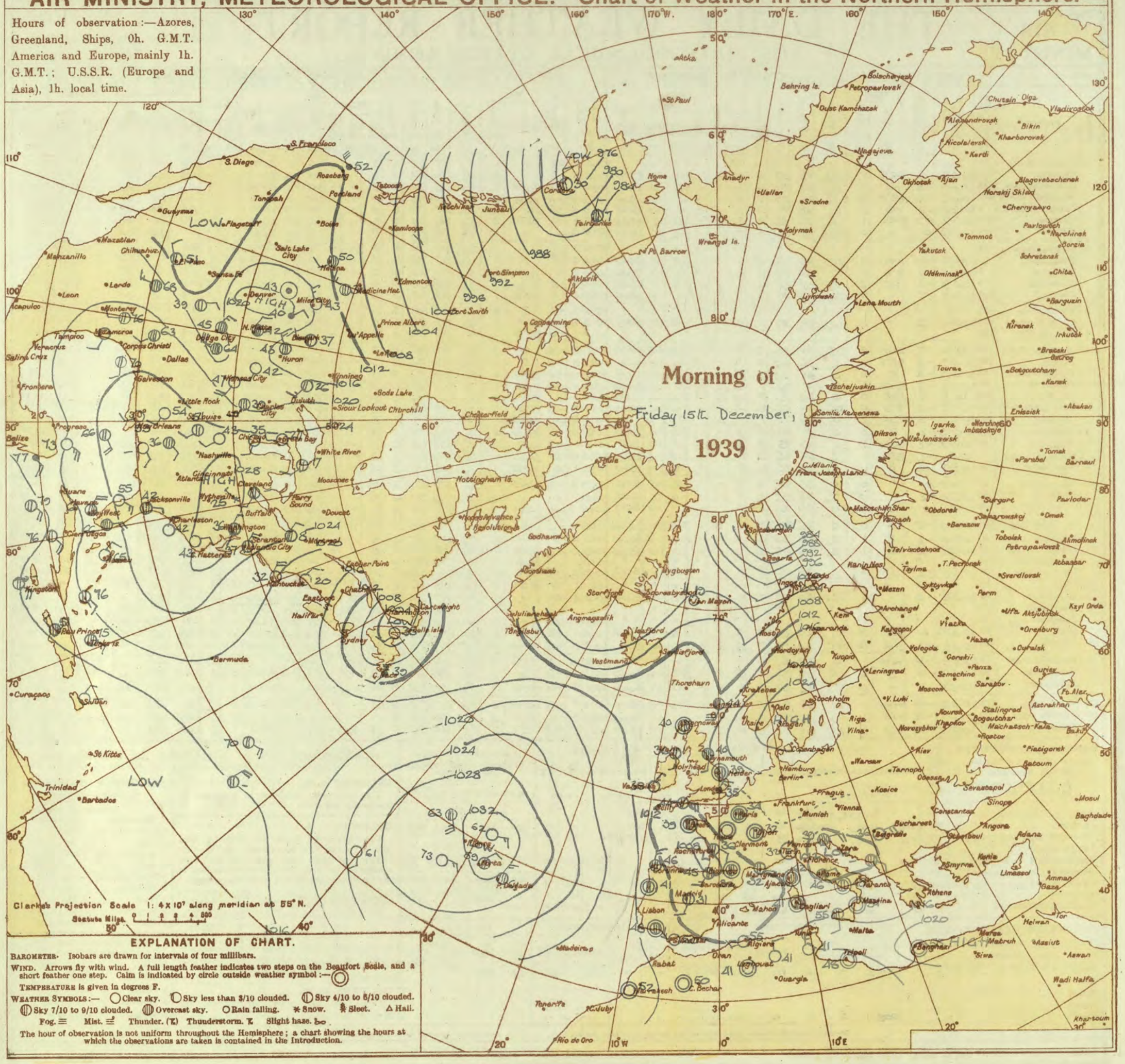
Tending to become gradually less settled.

Forecasts issued at 1000 GMT

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Friday 15th December 1939.

No. 28512

OBSERVATIONS at 1 hr. G.M.T. 15th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	Humid. % (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Cloud. Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	014·9	−6	NE'E	1	dd	35	97	4	5	–	–	10	10	2500
	S. Farnborough	226	014·3	−8	NE	2	m	36	92	4	5	–	–	10	10	4000
	Boscombe Down	417	014·3	−2	NE'E	2	Zo	35	85	6	5	–	–	10	10	2500
	Calshot (Sthmtn.)	8	013·9	−2	NE	3	Zo	38	75	5	5	–	–	10	10	1500
	Lympne ...	346	015·7	+2	NNE	1	id	35	85	5	5	–	–	10	10	4000
	Manston ...	154	014·9	0	–	0	dd	35	92	4	5	–	–	10	10	2500
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	014·4	−10	NE	2	ir	40	75	6	5	–	–	10	10	4000
	Gorleston ...	5	015·5	+2	E'S	2	c	39	75	6	5	–	–	10	10	2500
	Mildenhall ...	19	014·9	−4	NE	2	Zo	37	85	6	5	–	–	10	10	2500
	Cranwell ...	240	015·5	−2	–	0	dd	35	97	5	5	–	–	10	10	2500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	015·4	−2	–	0	m	36	97	4	5	–	–	10	10	800
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	012·6	−2	ENE	3	bc	40	85	8	5	–	–	4-6	4-6	4000
	Bristol ...	209	014·7	−2	SE'E	1	Zo	36	85	5	5	–	–	10	10	4000
	Portland Bill ...	32	012·3	−4	E	4	0	41	92	7	5	–	–	10	10	1500
	Plymouth ...	82	012·6	−2	ENE	1	c	41	85	7	5	2	–	9	10	4000
	The Lizard ...	240	011·9	+2	ESE	3	c	43	75	7	8	2	–	7-8	10	1500
	Scilly (St. Mary's)	163	011·2	+2	E'S	4	bc	44	65	8	4	–	–	2-3	2-3	2500
	Guernsey ...	175	012·0	−8	ESE	2	bc	36	75	7	–	3	–	0	2-3	–
6	Pembroke ...	142	012·3	−2	E	3	c	41	97	6	5	–	–	7-8	7-8	2500
7	Holyhead ...	26	012·7	−2	SSW	2	c	43	75	7	5	–	–	10	10	1500
	Chester (Sealand)	16	015·1	−2	SE'S	1	Zo	36	85	5	5	–	–	2-3	2-3	2500
8	Manchester ...	70	015·7	−2	E	1	Zo	36	85	6	5	–	–	9+	9+	1500
10	Spurn Head ...	29	015·9	0	–	0	0	38	97	6	5	–	–	10	10	1500
	Catterick ...	175	016·0	+2	–	0	Zo	36	92	6	5	–	–	10	10	1500
	Tynemouth ...	108	016·5	0	S	2	0	40	85	6	5	–	–	10	10	1500
11	St. Abbs Head	280	016·0	−2	–	0	c	36	85	7	5	6	–	7-8	9+	2500
	Leuchars ...	36	015·4	−2	E	1	Zo	35	85	6	5	–	–	4-6	4-6	4000
12	Renfrew (Abbots I.)	19	015·2	−4	E	1	Zo	36	85	5	5	–	–	10	10	2500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	014·4	−2	S'E	4	c	40	85	7	5	–	–	10	10	1500
13A	Tiree ...	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	014·5	−6	–	0	f/pr	40	92	7	5	2	–	7-8	10	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	013·7	0	SSE	3	c	42	85	7	5	7	–	4-6	7-8	1500
16	Lerwick ...	156	014·2	+2	S'W	6	f/r	44	85	7	8	2	–	7-8	10	800
17	Blacksod Point	18	013·3	−14	W'N	1	b	37	85	8	–	–	–	0	0	–
18	Malin Head ...	84	013·2	−4	S	2	bc	36	85	7	2	6	–	2-3	4-6	4000
	Aldergrove ...	268	013·5	−10	–	0	Zo	38	97	6	5	–	–	10	10	4000
19	Birr Castle ...	173	013·9	−10	NNW	1	c	35	85	7	5	–	–	7-8	7-8	2500
20	Valentia Obsy.	30	014·1	−18	NE	1	b	35	85	8	5	–	–	1	1	2500
	Roches Point	22	012·7	−16	N'E	3	r.r	41	92	8	6	2	–	7-8	10	1500

OBSERVATIONS at 7 hr. G.M.T. 15th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Cloud. Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	014·3	+2	E	1	Zo	37	92	5	5	–	–	10	10	500	1	*
	Croydon ...	014·5	−2	–	0	m	35	97	4	5	–	–	10	10	2500	1	*
	S. Farnborough	014·1	+2	ENE	1	Zo	35	92	5	5	–	–	10	10	4000	1	*
	Boscombe Down	013·7	−4	E'N	2	id	35	92	5	5	–	–	10	10	1500	1	*
	Calshot (Sthmtn.)	013·4	+2	NE'N	2	id	37	97	5	5	–	–	10	10	1500	1	1
	Lympne ...	015·3	+2	E'N	2	Zo	36	75	6	5	–	–	10	10	2500	1	*
	Manston ...	014·5	0	–	0	id	36	85	5	5	–	–	10	10	2500	1	*
2	Shoeburyness ...	014·8	+2	–	0	dd	36	92	4	5	–	–	10	10	1500	1	*
	Felixstowe ...	014·5	−2	S	1	id	37	92	6	5	–	–	10	10	2500	1	2
	Gorleston ...	014·9	0	ESE	3	c	40	75	6	5	–	–	10	10	2500	0	2
	Mildenhall ...	014·5	−2	E'N	2	ir	36	97	5	5	–	–	10	10	4000	1	*
	Cranwell ...	015·4	+2	NE'E	1	id	35	97	5	5	–	–	10	10	1500	0	*
3	Birmingham ...	014·9	−4	E	2	c	35	85	5	5	–	–	9+	9+	1500	1	*
	Upper Heyford	014·8	−2	NE	1	Zo	34	92	6	5	–	–	10	10	2500	0	*
4	Ross-on-Wye	014·1	−6	E'N	2	m	35	92	4	5	–	–	10	10	800	1	*
5	Hartland Point	011·6	−6	E	3	c	38	85	8	5	–	–	9	9	2500	1	2
	Bristol ...	013·8	−6	E	1	Zo	36	92	5	5	–	–	10	10	2500	1	*
	Portland Bill ...	012·8	+8	SSE	4	id	39	92	7	5	–	–	10	10	800	1	4
	Plymouth ...	012·0	−4	NE	1	c	40	85	6	5	7	–	7-8	10	4000	1	1
	The Lizard ...	011·5	0	ESE	3	c	41	92	8	8	–	–	7-8	7-8	1500	1	2
	Scilly (St. Mary's)	010·9	−4	ESE	2	c	43	75	7	8	7	–	4-6	9+	2500	1	2
	Guernsey ...	011·9	0	ESE	1	c	37	65	7	8	–	–	10	10	1500	1	3
6	Pembroke ...	012·0	−2	SSE	4	c	43	75	7	5	–	–	9+	9+	2500	1	2
7	Holyhead ...	012·1	−2	SE	3	c	42	85	6	5	–	–	10	10	2500	1	1
	Chester (Sealand)	014·6	0	ESE	1	cf+	35	92	3	5	–	–	10	10	1500	1	*
8	Manchester ...	015·1	0	ENE	1	Zo	38	85	5	6	–	–	10	10	1500	1	*
10	Spurn Head ...	015·3	−2	NNE	1	0	39	85	6	5	–	–	10	10	800	1	1
	Catterick ...	015·7	0	–	0	Zo	35	97	6	5	–	–	10	10	800	1	*
	Tynemouth ...	016·3	0	SW	2	0	38	85	6	5	–	–	10	10	1500	1	1
11	St. Abbs Head	015·0	−2	S	3	c	37	85	7	5	2	–	7-8	10	2500	0	1
	Leuchars ...	015·0	0	–	0	Zo	35	92	6	5	–	–	10	10	2500	1	*
12	Renfrew (Abbots I.)	015·0	+2	ENE	1	Zo	36	85	5	5	–	–	10	10	2500	1	*
	Eskdalemuir ...	015·0	0	NW'N	1	0	33	92	6	5	–	–	10	10	800	1	*
	Point of Ayre ...	013·2	−6	S'E	5	id	41	85	7	5	2	–	4-6	10	1500	1	3
13A	Tiree ...	011·2	0	ESE	2	bc	35	92	8	8	–	–	4-6	4-6	1500	3	2
13B	Stornoway ...	013·4	0	–	0	f/pr	37	92	7	5	2	–	4-6	10	1500	1	0
15	Dalwhinnie ...	*	+2	S	3	c	32	85	6	4	2	–	4-6	9+	1500	0	*
	Aberdeen ...	015·7	0	–	0	f/r	36	92	6	5	7	–	9	10	2500	1	1
	Wick ...	014·1	+2	S	4	bc	40	85	7	5	4	–	2-3	2-3	2500	1	2
16	Lerwick ...	015·6	+12	S'W	5	f/r	45	75	7	8	7	–	7-8	10	1500	1	*
17	Blacksod Point	010·8	−10	W'N	2	b	39	92	8	–	–	–	0	0	–	0	2
18	Malin Head ...	011·4	−2	S	1	c	38	85	7	8	–	–	7-8	7-8	4000	0	3
	Aldergrove ...	011·9	−6	ESE	3	Zo	41	85	6	5	–	–	10	10	4000	1	*
19	Birr Castle ...	011·7	−6	NNW	1	f/pr	35	97	8	8	–	–	7-8	7-8	1500	1	*
20	Valentia Obsy.	010·2	−14	E'N	2	bc	34	92	8	–	–	6	0	4-6	–	1	3
	Roches Point	010·3	−12	NE'E	2	rr	40	97	7	6	2	–	7-8	10	800	1	3

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F. (31)	Temperature. Min. Night 18h–7h °F (32)	Temperature. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine Hrs. (36)
1	London (Kew)	40	36	34	–	0·3	0·0
	Croydon ...	39	34	33	–	0·1	0·0
	S. Farnborough	40	35	34	Tr	Tr	0·0
	Boscombe Down	40	34	31	0·5	Tr	0·0
	Calshot (Sthmtn.)	44	36	35	–	0·5	0·0
	Lympne ...	37	35	34	–	Tr	0·0
	Manston ...		35	34		0·1	0·0
2	Shoeburyness ...	39	35	35	Tr	0·5	0·0
	Felixstowe ...	40	36	35	Tr	0·5	0·0
	Gorleston ...	41	38	37	–	–	*
	Mildenhall ...	40	36	35	Tr	Tr	0·0
	Cranwell ...	38	35	34	Tr	Tr	0·0
3	Birmingham ...	38	34	30	*	–	0·0
	Upper Heyford	38	33	28	Tr	–	*
4	Ross-on-Wye	38	35	34	Tr	–	0·0
5	Hartland Point	44	38	35	Tr	–	0·0
	Bristol ...	40	35	34	Tr	–	0·0
	Portland Bill ...	45	38	*	2	1	*
	Plymouth ...	48	39	36	1	Tr	0·0
	The Lizard ...	48	40	*	3	2	0·3
	Scilly (St. Mary's)	49	43	*	0·3	0·2	4·1
	Guernsey ...	43	36	30	–	–	0·0
6	Pembroke ...	45	40	*	0·8	0·1	0·0
7	Holyhead ...	43	40	39	–	–	0·0
	Chester (Sealand)	38	33	26	–	–	0·0
8	Manchester ...	38	36	33	–	–	0·0
10	Spurn Head ...	41	37	*	Tr	1	0·0
	Catterick ...	37	34	34	Tr	–	0·0
	Tynemouth ...	39	38	36	–	0·1	*
11	St. Abbs Head	36	33	*	–	–	*
	Leuchars ...	39	32	25	–	–	0·0
12	Renfrew (Abbots I.)	39	35	35	1	Tr	0·0
	Eskdalemuir ...	34	32	31	–	0·1	0·0
	Point of Ayre ...	42	39	*	–	Tr	0·0
13A	Tiree ...	44	32	23	Tr	–	0·0
13B	Stornoway ...	42	37	*	0·2	2	0·0
15	Dalwhinnie ...	35	31	31	2	Tr	0·0
	Aberdeen ...	41	35	29	–	Tr	0·0
	Wick ...	43	37	*	–	–	*
16	Lerwick ...	46	42	*	1	3	0·0
17	Blacksod Point	45	35	*	0·4	Tr	*
18	Malin Head ...	46	33	*	Tr	–	0·0
	Aldergrove ...	41	36	33	0·4	Tr	0·0
19	Birr Castle ...	41	33	32	0·1	0·2	0·0
20	Valentia Obsy.	47	33	26	0·5	Tr	3·8
	Roches Point	44	39	*	1	8	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather Morning. (24 hrs. ended 9h.)	Weather Afternoon.	Weather Night.	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine. to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h.
Kew ...	18		omoZo	omddo	40	36	34	–	0·3	0·0	•	•	3
Croydon ...	217	cmo	cmo	omddc	39	34	33	–	0·1	0·0	•	•	4
Greenwich (Royal Observatory) ...	149	omo	omo	oddom	38	34	34	–	1	0·0	83	94	4
City (Bunhill Row) ...	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park) ...	27	•	•	•	40	37	37	1			70	81	•
Regents Pk. (Botanic Gardens)‡ ...	168	•	•	•	39	36	32	–	1		77	91	•
Camden Square ...	110	o	od	•	40	36	33	–	0·5	•	•	92	•
Kensington ...	80	c	cf	•	40	36	35	–	1		88	81	•
Hampstead Observatory ...	450	o	or	of	38	35	33	Tr	1		•	91	•

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 15th.

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0·4	22h. 14th.	<0·1	5h. 15th

FOREIGN OBSERVATIONS.

Stations.	18h. G.M.T. 14th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	7h. G.M.T. 15th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
Paris ...	013·8	–	0	m	34	014·2	–	0	Zo	37	36	32	–	–
Brussels ...														
Berlin ...														
Zürich ...														
Rome ...	009·1	E	3	c	50						•	•	2	

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

0 Calm.	5 Very rough.
1 Smooth.	6 High.
2 Slight.	7 Very high.
3 Moderate.	8 Preciptious.
4 Rough.	9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Saturday 16th December 1939.

No. 28513

OBSERVATIONS at 13h. G.M.T. 15th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1014.8	0	E	2	of	38	85	3	5	-	-	10	10	2500
	Croydon	1015.1	+2	ENE	1	m	37	85	4	5	2	-	7-8	10	4000
	S. Farnborough	1014.7	-2	E	2	m	36	92	4	5	-	-	10	10	4000
	Boscombe Down	1014.3	-2	E	3	z$_0$	35	92	5	5	-	-	10	10	2500
	Calshot (Soton.)	1013.8	-2	NE	2	r$_0$r$_0$	37	97	5	6	2	-	7-8	10	800
	Lympne	1016.0	-2	E'S	3	o	36	75	7	5	-	-	10	10	4000
	Manston	1015.3	-10	SE'S	2	rs	36	85	6	5	-	-	10	10	1800
2	Shoeburyness	1013.3	0	-	0	d$_0$d$_0$	37	92	5	5	-	-	10	10	1500
	Felixstowe	1014.8	+2	S	1	ir$_0$	37	92	5	5	-	-	10	10	1500
	Gorleston	1016.1	0	E'N	3	pr	40	65	6	5	-	-	10	10	2500
	Mildenhall	1015.5	+2	-	0	c	37	97	6	5	-	-	10	10	4000
	Cranwell	1015.6	-2	NE	1	m/d	36	97	4	5	-	-	10	10	2500
3	Birmingham	1015.0	+2	E	2	m	36	85	4	5	-	-	10	10	1500
	Upper Heyford	1015.6	-2	ENE	1	m	35	92	4	5	-	-	10	10	1500
4	Ross-on-Wye	1014.5	0	E'N	2	z$_0$	36	85	5	5	-	-	10	10	800
5	Hartland Point	1012.2	-8	E	3	c	37	85	7	5	-	-	7-8	7-8	1500
	Bristol	1014.4	+2	ENE	2	d$_0$d$_0$	36	92	5	5	-	-	10	10	800
	Portland Bill	1012.7	-2	ESE	4	id$_0$	40	92	7	5	2	-	4-6	10	2500
	Plymouth	1012.5	-2	E	1	z$_0$	39	85	6	5	-	-	10	10	2500
	The Lizard	1011.3	-4	E'S	4	e	43	75	8	8	2	-	9	10	1500
	Scilly (St. Mary's)	1010.3	-6	SE'E	4	e	44	75	7	8	2	-	7-8	9+	1500
	Guernsey	1012.3	0	ESE	2	c	37	65	7	5	2	-	7-8	10	2500
6	Pembroke	1012.6	-2	SE'E	4	z$_0$	41	85	6	5	-	-	10	10	1500
7	Holyhead	1013.2	+2	SSE	3	c	42	75	7	5	2	-	9+	10	2500
	Chester (Sealand)	1015.3	+2	SE'S	3	m	39	75	4	5	-	-	10	10	1500
8	Manchester	1015.6	0	SSE	2	m/f	39	85	4	5	-	-	10	10	4000
10	Spurn Head	1015.9	0	SSW	2	id$_0$	39	92	6	5	-	-	10	10	800
	Catterick	1016.7	+2	-	0	m	36	97	4	5	-	-	10	10	1500
	Tynemouth	1016.9	+2	W	2	of	39	92	2	5	-	-	10	10	1500
11	St. Abbs Head	1016.7	+10	S	1	c	38	97	7	8	6	-	7-8	10	2500
	Leuchars	1016.8	+6	SW	1	z$_0$	37	92	6	5	2	-	4-6	10	2500
12	Renfrew (Abbots I.)	1016.1	+2	ENE	2	x$_0$	36	85	5	5	-	-	10	10	2500
	Eskdalemuir	1016.0	+2	E'N	2	c	35	85	7	5	-	-	10	10	2500
	Point of Ayre	1014.2	0	S'E	5	c	42	65	7	5	3	-	7-8	9+	1500
13A	Tiree	1013.5	+2	ESE	4	rr	39	92	7	-	2	-	10	10	1500
13B	Stornoway	1014.9	+4	-	0	c	39	92	7	5	5	-	7-8	9	4000
15	Dalwhinnie	1016.3	+4	S	4	c	33	85	5	4	5	-	7-8	9+	1500
	Aberdeen	1017.6	+6	S	2	c	41	65	6	6	7	-	9	9+	1500
	Wick	1016.7	+8	SSE	4	c	42	65	8	5	7	1	4-6	9+	2500
16	Lerwick	1018.2	+10	S'W	5	c	44	75	8	8	7	-	4-6	9	1500
17	Blacksod Point	1011.2	0	E'S	3	bc	42	75	9	9	-	3	0	2-3	-
18	Malin Head	1012.1	-4	S'W	1	z$_0$	40	92	5	8	-	-	9+	9+	800
	Aldergrove	1012.4	+4	SE'E	3	r$_0$r$_0$	42	92	6	5	2	-	7-8	10	2500
19	Birr Castle	1011.8	+2	ENE	1	c	39	97	7	5	1	-	7-8	10	2500
20	Valentia Obsy. †	1010.7	+2	-	0	c	41	85	9	5	3	-	7-8	9	4000
	Roches Point	1010.9	0	S'W	3	c/pr	48	85	8	8	-	-	7-8	7-8	1500

OBSERVATIONS at 18h. G.M.T. 15th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1015.9	+8	E	2	m	37	75	4	5	-	-	10	10	1500	1	*
Croydon	1015.8	+10	ENE	2	m	35	85	4	5	-	-	10	10	4000	1	*
S. Farnborough	1015.6	+8	ENE	2	m	36	85	4	5	-	-	10	10	4000	1	*
Boscombe Down	1015.3	+10	ENE	2	d$_0$d$_0$	35	92	4	5	-	-	10	10	800	1	*
Calshot (Soton.)	1014.3	+4	ENE	4	o/d	38	85	6	5	-	-	10	10	1500	1	2
Lympne	1016.3	+4	NE'E	2	z$_0$	36	75	6	5	-	-	10	10	2500	1	§2
Manston	1016.0	+8	ESE	3	z$_0$	38	65	6	5	-	-	10	10	1500	1	*
Shoeburyness	1016.3	+4	-	0	d$_0$d$_0$	35	97	6	5	-	-	10	10	1500	1	*
Felixstowe	1016.1	+4	-	0	z$_0$	36	97	5	5	-	-	10	10	2500	1	2
Gorleston	1016.6	+4	E'N	3	c	41	75	6	5	-	-	10	10	2500	0	2
Mildenhall	1016.5	+10	ENE	2	d$_0$d$_0$	37	92	5	5	-	-	10	10	5700	1	*
Cranwell	1016.8	+12	-	0	m	36	97	4	5	-	-	10	10	2500	0	*
Birmingham	1016.0	+8	ESE	2	m	36	85	4	5	-	-	10	10	800	1	*
Upper Heyford	1016.2	+8	ENE	2	m	35	97	4	5	-	-	10	10	2500	0	*
Ross-on-Wye	1015.6	+8	ENE	2	m	35	92	4	5	-	-	10	10	800	1	*
Hartland Point	1013.0	+10	E	4	c	37	92	7	5	-	-	7-8	7-8	2500	1	2
Bristol	1015.0	+6	ENE	1	id$_0$	36	92	5	5	-	-	10	10	1500	1	*
Portland Bill	1013.3	+8	ESE	4	o	41	92	7	5	-	-	10	10	2500	1	4
Plymouth	1013.1	+10	ENE	2	z$_0$	40	75	5	5	-	-	10	10	2500	1	2
The Lizard	1011.7	+4	E	4	c	42	75	8	8	2	-	9	10	1500	1	2
Scilly (St. Mary's)	1011.6	+12	E'S	2	c	43	75	7	8	2	-	4-6	10	1500	1	2
Guernsey	1012.5	+6	E'S	2	c	38	65	8	8	-	-	9+	9+	2500	0	3
Pembroke	1014.0	+8	E'S	4	c	39	85	7	5	7	-	4-6	7-8	1500	1	2
Holyhead	1015.2	+14	E'N	2	c	40	85	6	5	-	-	10	10	4000	1	1
Chester (Sealand)	1016.3	+10	-	0	of	37	85	3	5	-	-	10	10	1500	1	*
Manchester	1016.9	+10	E'S	3	m/f	39	85	4	5	-	-	10	10	1500	1	*
Spurn Head	1017.4	+4	-	0	id$_0$	38	92	6	5	-	-	10	10	800	*	1
Catterick	1017.5	+4	-	0	m	36	97	4	5	-	-	10	10	4000	1	x
Tynemouth	1018.8	+10	SW	1	m/p	39	92	4	5	-	-	10	10	1500	1	1
St. Abbs Head	1017.4	+8	W	2	o/p	37	92	7	5	-	-	10	10	1500	1	1
Leuchars																
Renfrew (Abbots I.)	1017.7	+14	E	2	of	39	85	3	5	-	-	10	10	4000	1	*
Eskdalemuir	1017.5	+14	E'N	1	e	34	85	6	5	-	-	10	10	1500	1	*
Point of Ayre	1016.1	+18	SSE	4	c	41	75	7	5	1	-	4-6	10	1500	0	2
Tiree	1015.0	+6	ESE	4	c	40	85	7	5	-	-	7-8	7-8	1500	1	3
Stornoway	1017.2	+16	-	0	c	40	92	6	5	2	-	9	10	2500	1	0
Dalwhinnie	*	+16	S	2	c	33	85	5	4	6	-	4-6	7-8	1500	0	*
Aberdeen	1019.1	+14	SE	3	ir$_0$	41	85	6	6	-	-	9+	9+	1500	1	2
Wick	1018.2	+12	SSE	4	c	43	75	7	5	1	-	4-6	9	1500	1	2
Lerwick	1019.8	+8	S'W	4	c	44	65	8	8	7	-	4-6	7-8	1800	1	*
Blacksod Point	1013.7	+18	E'S	2	b	38	92	9	-	-	-	0	0	-	0	2
Malin Head	1013.2	+14	S	2	c	40	92	6	9	-	-	9+	9+	800	0	
Aldergrove	1014.6	+22	S'E	2	r$_0$r$_0$	40	97	6	5	-	-	10	10	2500	1	*
Birr Castle	1013.4	+10	ENE	1	c	39	97	7	5	1	-	7-8	10	2500	1	*
Valentia Obsy. †	1011.9	+14	E	3	c	42	85	8	5	-	2	2-3	9+	5700	1	2
Roches Point	1012.6	+16	SSE	3	bc	46	85	8	5	-	5	2-3	4-6	1500	1	3

PAST 24 HOURS.

Stations	Weather 7h.–18h. 15th (37)	Weather 13h.–18h. 15th (38)	Weather 18h. 15th to 1h. 16th (39)	Weather 1h.–7h. 16th (40)
London (Kew)	omof	ofcz	cmcddm	cz$_0$
Croydon	cmir$_0$m$_0$	cmfm$_0$m	cmcdm	d$_0$dmcm$_0$
S. Farnborough	fm$_0$mc	mdfmc	cmidfc	fedfed$_0$c
Boscombe Down	omom$_0$	om$_0$idm	oddpmpm$_0$	om$_0$md$_0$d$_0$
Calshot (Soton.)	oidr$_0$r$_0$	or$_0$r$_0$d$_0$dd	om$_0$cm	id$_0$m
Lympne	oz$_0$	pighoz$_0$	oz$_0$	oz$_0$
Manston	id$_0$r$_0$z$_0$	cr$_0$z$_0$	cz$_0$	cz$_0$
Shoeburyness	d$_0$dmc	cmd$_0$c	d$_0$dm$_0$c	cm$_0$c
Felixstowe	od$_0$ir$_0$	or$_0$id$_0$om$_0$	om$_0$	om$_0$
Gorleston	cpr$_0$	cpr$_0$	c	c
Mildenhall	cir$_0$id$_0$hi$_0$m	cir$_0$od$_0$	d$_0$d$_0$idom$_0$	om$_0$
Cranwell	ocid$_0$cm	cm	cmcid$_0$m	cmm$_0$
Birmingham	cid$_0$m	cm	mco	oc
Upper Heyford	cm$_0$cm	cm	cmd$_0$d$_0$m	id$_0$mcm$_0$
Ross-on-Wye	om$_0$	om$_0$om	om	om
Hartland Point	cbcc	c	c	c
Bristol	cmid$_0$d$_0$d$_0$	cid$_0$m$_0$	edcm$_0$	cmd$_0$
Portland Bill	oid	o	o	oc
Plymouth	cm$_0$cz$_0$	cm$_0$z$_0$	cir$_0$r$_0$r$_0$	r$_0$r$_0$cir$_0$
The Lizard	c	c	c	rrprc
Scilly (St. Mary's)	cp$_0$c	c	cp$_0$cp$_0$	cp$_0$c
Guernsey	c	c	c	c
Pembroke	z$_0$c	m$_0$c	zc	cz$_0$
Holyhead	cdc	c	cm$_0$c	cm$_0$c
Chester (Sealand)	cfwm	cmf	cfoid$_0$mc	cmm$_0$
Manchester	cm$_0$mfm	cmffm	cmm$_0$	czm$_0$
Spurn Head	oird$_0$	oid$_0$	oc	cq
Catterick	oid$_0$m	oid$_0$cm	md$_0$d$_0$m$_0$	om$_0$cm$_0$
Tynemouth	oir$_0$ff	offir$_0$om	oirmo	bc
St. Abbs Head	ir$_0$c	cr$_0$ro	irc	c
Leuchars	cm$_0$		cm$_0$w	cmjd$_0$ir$_0$c
Renfrew (Abbots I.)	c	cm$_0$z$_0$mff	cffmm$_0$	cm$_0$
Eskdalemuir	cm$_0$c	c	co	opr$_0$
Point of Ayre	c	c	c	cm$_0$
Tiree	odrdr	drd$_0$c	c	c
Stornoway	c	c	cbc	bcb
Dalwhinnie	c	c	*	c
Aberdeen	cir$_0$c	circ	cir$_0$Rc	cir$_0$c
Wick	bcc	c	c	cbc
Lerwick	cprir	c	cir$_0$	c
Blacksod Point	bc	bc	b	b
Malin Head	czedfc	zcr$_0$rc	cr$_0$rc	cbcz$_0$zc
Aldergrove	id$_0$r$_0$r$_0$m$_0$	rrr$_0$r$_0$m$_0$	crr$_0$r$_0$id$_0$	c
Birr Castle	oc	c	or$_0$r$_0$	
Valentia Obsy. †	bcxcr	cvpr$_0$ir$_0$c	c	cir$_0$o
Roches Point	cpr$_0$c	cbc	cbcc	r$_0$r$_0$c

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_0$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_0$/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r$_0$, slight rain. rr, continuous rain.
<, less than (for cloud height). ↗gale.
⊕ Solar halo. Φ lunar halo. ⌂Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

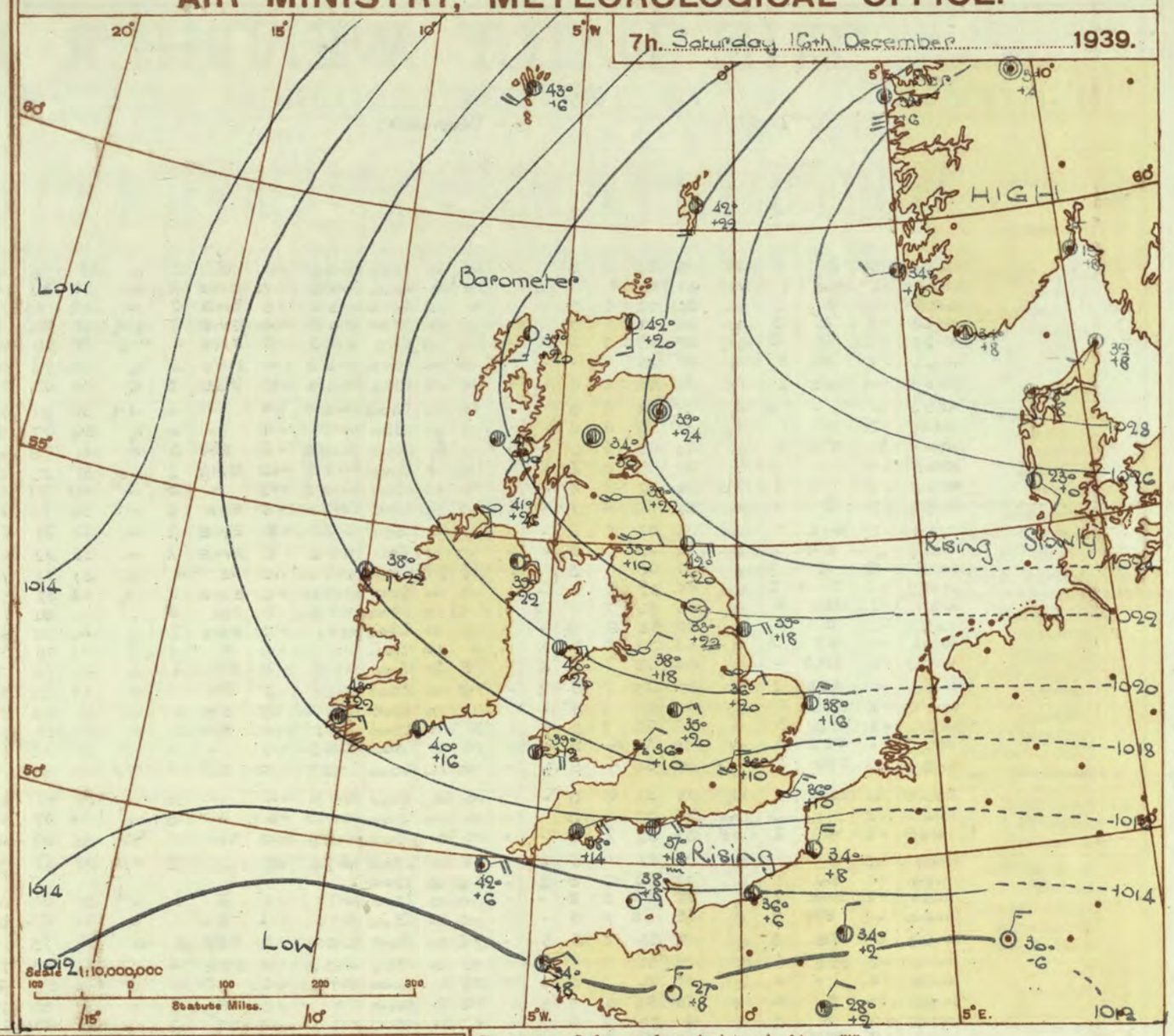
Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. „ wet.
2 .. „ flooded.
3 .. „ frozen hard and dry.
4 .. „ partly covered with snow or hail.
5 .. „ covered with ice or glazed frost.
6 .. „ covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. „ covered with snow, less than 6 ins., but ground frozen.
9 .. „ covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.



BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 16th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ... 5 S.W. England	Moderate or fresh northeast wind, strong locally on coast; dull; local showers, chiefly near East coast; rather cold.
6 South Wales ... 7 North Wales ... 8 N.W. England	Moderate or fresh east to northeast wind; mainly dull; rather cold.
9 N. Midlands ... 10 N.E. England 11 S.E. Scotland	Moderate or light east to northeast wind; cloudy or dull local showers; rather cold.
12 S.W. Scotland & Isle of Man.	As 6 - 8.
13 A. W. Scotld. / B.N.W.Scotland.	Light variable wind; fair; rather cold, frost and fog locally.
14 Mid Scotland 15 N. E. Scotland	
16 Orkneys and Shetlands	Moderate or fresh southwest wind; fair; average temperature.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	As 6 - 8.

GENERAL INFERENCE.

An anticyclone over Norway is moving west-south-west. Wind will freshen from northeast over England and Wales and weather will be mainly dull generally with local showers chiefly in eastern districts.

FURTHER OUTLOOK.

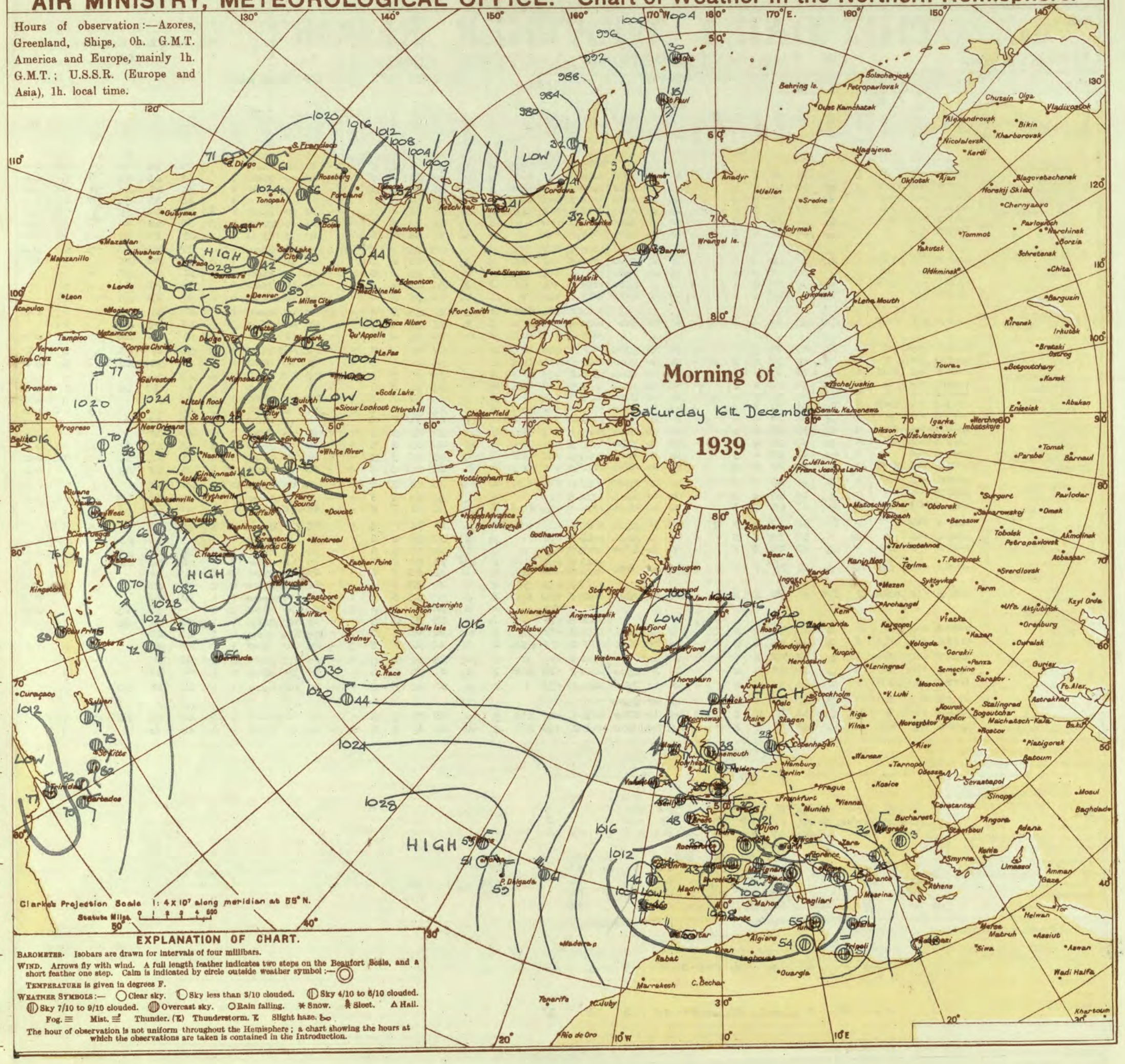
Little change. Cloudy or dull over most of England for some days.

Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.
6.973/9797 No. 8109 D. 4626 G. 848 (5110) 11/39

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Saturday 16th. December 1939.

No. 28,513

OBSERVATIONS at 1 hr. G.M.T. 16th. December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	1017.7	+6	*	0	dodo	35	97	4	5	-	-	10	10	1500
	Croydon	217	1017.8	+10	NE'E	2	·of+	35	85	3	5	-	-	10	10	1500
	S. Farnborough	226	1017.3	+10	NE	3	zo	34	85	5	5	-	-	10	10	4000
	Boscombe Down	417	1016.6	+6	NE	3	zo	37	75	6	5	-	-	10	10	4000
	Calshot (Sthmtn.)	8	1017.9	+6	ENE	1	zo	36	75	6	5	-	-	10	10	2500
	Lympne	346	1017.8	+8	E	3	zo	38	65	6	5	-	-	10	10	2500
	Manston	154														
2	Shoeburyness	11	1017.9	+4	ENE	3	zo	39	65	6	5	-	-	10	10	4000
	Felixstowe	15	1019.3	+10	NE	3	c	38	75	7	5	-	-	10	10	2500
	Gorleston	5	1019.1	+10	NE'E	3	zo	37	85	6	5	-	-	10	10	2500
	Mildenhall	19	1019.2	+10	-	0	m/d	37	92	4	5	-	-	10	10	4000
	Cranwell	240														
3	Birmingham	535	1018.3	+8	NE'E	2	dodo	35	97	4	5	-	-	10	10	450
	Upper Heyford	408														
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
			1014.8	+4	E	4	c	37	85	8	5	-	-	5+	5+	2500
5	Hartland Point	299	1018.0	+10	E	1	zo	35	92	5	5	2	-	9	10	1500
	Bristol	209	1015.2	+6	ENE	4	o	39	92	7	5	-	-	10	10	1500
	Portland Bill	32	1015.2	+10	E	2	r°r°	38	92	6	5	-	-	10	10	2500
	Plymouth	82	1014.4	+6	E	3	c	41	75	7	5	2	-	9	10	1500
	The Lizard	240	1013.8	+10	ENE	4	c/pr	42	75	7	8	2	-	7-8	10	1500
	Scilly (St.Mary's)	163	1014.5	+8	E	1	c	38	76	7	8	-	-	9	9	2500
	Guernsey	175														
			1016.6	+4	E'S	4	zo	39	85	6	5	-	-	10	10	1500
6	Pembroke	142	1018.3	+14	E'N	4	c	40	75	6	5	-	-	10	10	2500
7	Holyhead	26	1019.2	+10	-	0	m	37	92	4	5	-	-	10	10	4000
	Chester (Sealand)	16	1019.8	+18	ENE	2	zo	39	75	5	5	-	-	10	10	1500
8	Manchester	70														
			1019.8	+2	E	4	c	41	65	7	5	-	-	10	10	2500
10	Spurn Head	29	1021.2	+14	-	0	zo	36	97	5	5	-	-	10	10	4000
	Catterick	175	1020.8	+18	SE	3	o	42	85	6	5	-	-	10	10	1500
	Tynemouth	108														
			1021.4	+16	-	0	c/r	38	97	7	8	2	-	7-8	10	2500
11	St. Abbs Head	280	1021.8	+16	-	0	zo	37	92	6	5	-	-	10	10	4000
	Leuchars	36	1021.6	+18	E'N	1	zo	39	85	5	5	-	-	10	10	5700
12	Renfrew (Abbots I.)	19														
	Eskdalemuir	794	1019.4	+16	SE	2	c	41	75	7	5	-	-	7-8	10	1500
	Point of Ayre	30														
13A	Tiree	22	1021.3	+16	ESE	2	bc	41	75	8	5	-	-	4-6	4-6	2500
13B	Stornoway	80														
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	1022.4	+16	S	4	c	43	75	7	5	2	-	7-8	10	1500
	Wick	81	1022.6	+2	S'W	4	c	44	85	8	8	2	-	4-6	7-8	1500
16	Lerwick	156														
			1016.7	+12	NW	1	b	38	97	8	-	-	-	0	0	-
17	Blacksod Point	18	1018.3	+20	SE	3	c	40	85	6	6	-	-	9	9	2500
18	Malin Head	84	1019.2	+22	ESE	2	zo	40	85	6	5	-	-	10	10	2500
	Aldergrove	268														
			1016.4	+12	S	1	r°r°	39	85	7	5	-	-	10	10	2500
19	Birr Castle	173	1014.6	+10	E	3	c	44	75	8	5	7	2	4-6	9+	5700
20	Valentia Obsy.	30	1015.4	+8	S'E	4	c	45	75	8	5	-		7-8	7-8	1500
	Roches Point	22														

OBSERVATIONS at 7 hr. G.M.T. 16th. December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
		1019.8	+12	NE'E	3	zo	37	75	6	5	-	-	10	10	1500	1	*
1	London (Kew)	1019.0	+10	NNE	2	zo	36	85	6	5	-	-	10	10	2500	1	*
	Croydon	1019.4	+6	NNE	3	S/d	36	85	5	5	-	-	10	10	4000	1	*
	S. Farnborough	1019.3	+14	NE'E	3	m/d	35	97	4	5	-	-	10	10	800	1	*
	Boscombe Down	1018.5	+12	NNE	3	ido	37	85	4	5	-	-	10	10	2500	1	2
	Calshot (Sthmtn.)	1018.9	+10	NE	3	zo	36	75	6	5	-	-	10	10	2500	1	§3
	Lympne	1019.1	+10	E	4	zo	38	65	6	5	-	-	10	10	2500	1	*
	Manston																
		1019.4	+6	NE	4	c	39	75	7	5	-	-	10	10	2500	1	
2	Shoeburyness	1019.6	+10	NE	4	zo	38	75	6	5	-	-	10	10	4000	1	3
	Felixstowe	1021.4	+16	NE'E	4	c	38	75	7	5	-	-	10	10	2500	0	2
	Gorleston	1021.3	+12	NE	3	zo	36	75	6	5	-	-	10	10	2500	1	*
	Mildenhall	1022.1	+20	E	2	zo	36	85	5	5	-	-	10	10	4000	0	*
	Cranwell																
		1021.9	+20	ENE	3	c	35	85	5	5	-	-	10	10	1500	1	
3	Birmingham	1020.8	+14	ENE	3	zo	35	85	5	5	-	-	10	10	2500	1	*
	Upper Heyford	1020.6	+10	NE'E	2	m	36	85	4	5	-	-	10	10	800	1	*
4	Ross-on-Wye																
		1017.3	+10	E	4	c	37	75	7	5	-	-	7-8	7-8	2500	1	3
5	Hartland Point	1020.0	+14	ENE	2	ido	36	92	5	5	2	-	9	10	1500	1	*
	Bristol	1017.4	+18	ENE	4	c	37	85	7	5	-	-	7-8	7-8	2500	1	4
	Portland Bill	1017.3	+14	NE'E	4	o/r	38	75	7	5	-	-	10	10	4000	1	1
	Plymouth	1015.9	+8	E	4	c	41	92	7	8	2	-	7-8	10	1500	1	3
	The Lizard	1015.0	+6	ENE	4	c	42	85	7	8	2	-	7-8	10	1500	1	3
	Scilly (St.Mary's)	1015.5	+8	E'S	1	c	38	75	7	8	-	-	10	10	1500	0	3
	Guernsey																
		1019.0	+12	E'S	4	c	39	75	6	5	-	-	9+	9+	1500	1	2
6	Pembroke	1021.9	+20	E'N	5	c	40	85	6	5	-	-	10	10	2500	1	3
7	Holyhead	1022.5	+18	NE'E	2	zo	38	85	5	5	-	-	10	10	4000	1	*
	Chester (Sealand)	1022.9	+16	NE'E	3	zo	38	85	5	5	-	-	10	10	2500	1	*
8	Manchester																
		1023.0	+18	E'N	4	oq	39	55	7	5	-	-	10	10	2500	0	3
10	Spurn Head	1024.5	+22	-	0	zo	33	92	6	5	-	-	9	9	4000	1	*
	Catterick	1024.8	+20	ESE	4	bc	42	75	7	8	-	-	4-6	4-6	2500	1	2
	Tynemouth																
		1025.1	+20	SE	4	c	41	75	7	8	3	-	7-8	9+	1500	0	2
11	St. Abbs Head	1026.3	+26	-	0	zo	37	92	6	5	-	-	9	9	4000	1	*
	Leuchars	1025.5	+22	E	2	zo	39	85	5	5	-	-	10	10	5700	1	*
12	Renfrew (Abbots I.)	1024.8	+10	ENE	2	o/f	35	97	5	5	-	-	10	10	1500	1	*
	Eskdalemuir	1022.9	+14	SE	4	c	42	85	7	5	1	-	4-6	10	1500	0	3
	Point of Ayre																
		1023.9	+30	SE	2	c	41	85	7	5	-	-	7-8	7-8	2500	0	2
13A	Tiree	1024.7	+20	SSW	3	b	37	85	8	1	-	-	1	1	4000	1	1
13B	Stornoway	*	+30	-	0	c	34	92	5	4	2	-	4-6	10	1500	0	*
15	Dalwhinnie	1026.8	+24	-	0	c	39	92	6	5	-	-	10	10	2500	1	1
	Aberdeen	1025.4	+20	S	3	bc	42	85	7	5	7	-	2-3	4-6	1500	1	2
	Wick	1025.9	+22	SSW	4	c	42	92	7	8	2	-	4-6	10	1500	1	*
16	Lerwick																
		1020.4	+22	E	3	bc	38	92	8	8	-	-	2-3	2-3	2500	0	2
17	Blacksod Point	1022.7	+26	SSE	2	zo	41	75	6	6	-	-	9+	9+	2500	0	2
18	Malin Head	1023.2	+22	E	2	c	39	85	7	5	-	-	10	10	4000	1	*
	Aldergrove																
19	Birr Castle	1018.1	+22	E'N	3	o	43	75	8	5	-	-	10	10	4000	1	2
20	Valentia Obsy.	1018.8	+16	E'N	3	c/r	40	85	8	6	2	-	7-8	9	1500	1	3
	Roches Point																

PAST 24 HOURS.

District	Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 15th. Hrs. (36)
		38	36	34	-	0.4	0.0
1	London (Kew)	37	34	33	Tr	Tr	0.0
	Croydon	36	35	34	Tr	0.1	0.0
	S. Farnborough	35	33	32	Tr	0.1	0.0
	Boscombe Down	39	36	35	1	Tr	0.0
	Calshot (Sthmtn.)	37	35	34	Tr	-	0.0
	Lympne	38	37	35	0.2	-	0.0
	Manston						
		37	35	35	Tr	0.1	0.0
2	Shoeburyness	39	36	35	1	-	0.0
	Felixstowe	41	37	37	Tr	-	*
	Gorleston	37	36	34	0.1	0.1	0.0
	Mildenhall	37	35	34	Tr	Tr	0.0
	Cranwell						
		36	35	34	Tr	-	0.0
3	Birmingham	35	34	32	-	0.1	
	Upper Heyford	36	35	34	-	-	0.0
4	Ross-on-Wye						
		39	37	36	-	-	1.6
5	Hartland Point	37	35	33	Tr	Tr	0.0
	Bristol	43	36	*	Tr	-	*
	Portland Bill	41	38	36	-	1	0.0
	Plymouth	44	37	*	-	5	0.0
	The Lizard	44	40	*	0.3	0.5	0.0
	Scilly (St.Mary's)	39	37	30	-	-	0.0
	Guernsey						
		43	37		-	-	0.0
6	Pembroke	43	39	37	Tr	-	0.0
7	Holyhead	39	36	34	-	Tr	0.0
	Chester (Sealand)	39	37	35	-	-	0.0
8	Manchester						
		41	38		1	Tr	0.0
10	Spurn Head	37	33	28	0.2	0.2	0.0
	Catterick	40	38	35	1	2	*
	Tynemouth						
		39	37	*	0.3	3	*
11	St. Abbs Head		36	34		0.4	0.0
	Leuchars	39	37	34	-	-	0.0
12	Renfrew (Abbots I.)	36	33	32	-	Tr	0.0
	Eskdalemuir	43	41	*	-	-	0.0
	Point of Ayre						
		40	39	36	4	-	0.0
13A	Tiree	41	36		-	-	0.5
13B	Stornoway		32	28		-	0.0
15	Dalwhinnie	42	38	35	3	1	0.0
	Aberdeen	43	42	*	-	-	*
	Wick	45	41	*	0.6	0.4	0.0
16	Lerwick						
		43	31		-	-	
17	Blacksod Point	41	37	*	5	-	0.0
18	Malin Head	42	38	36	4	3	0.0
	Aldergrove						
		40			-		
19	Birr Castle	44	42	35	0.2	Tr	1.4
20	Valentia Obsy.	49	40	*	1	1	*
	Roches Point						

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Temperature Night Min. °F.	Temperature Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
Kew	18	om,of	ofcz	cmcddo	38	36	34	-	0.4	0.0			5
Croydon	217	cmir,mo	cmfmo	cmddo	37	34	33	Tr	Tr	0.0	•	•	4
Greenwich (Royal Observatory)	149	om	om	oddonf	37	34	34	-	0.3	0.0	83	94	4
City (Bunhill Row)	—	•	•	•	39	37	36	0.2	•		73	74	•
Westminster (St. James' Park)	27	•	•	•	38	35	32	-	0.5		81	83	•
Regents Pk. (Botanic Gardens)‡	168	•	•	•	39	35	32	-	0.3			86	•
Camden Square	110	o	or	•	38	35	35	-	0.6	•	87	79	•
Kensington	80	cfc	c	•	36	33	32	-	0.3		•	88	•
Hampstead Observatory	450	o	of	or									•

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 16th

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
45	22h. 15th.	28.1	4.8h. 16th

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 15th. December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 16th. December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1014.2	-	0	b	30	1015.3	N	3	o	34	37	30		
Brussels														
Berlin														
Zürich	1013.1	E	3	o	48	1003.0	SE	8	c	57	•	•	1	-
Rome														

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22.—Code for surface visibility.

Code		Objects not visible at
0	Dense fog	55 yards.
1	Thick fog	220 ,,
2	Fog	550 ,,
3	Moderate fog	1,100 ,,
4	Mist or haze	1¼ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6¼ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30.—Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Sunday 17th December 1939.

No. 28,514.

OBSERVATIONS at 13h. G.M.T. 16th December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force 0–12 (4)	Weather. (5)	Temp. °F. (6)	Humid. % (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)...	1021.5	+4	NE	4	z	38	70	5	5	-	-	10	10	2500
	Croydon	1021.2	+6	NE	3	z	37	88	5	5	-	-	4-6	10	1500
	S. Farnborough	1021.6	+6	NE	4	z	37	75	6	5	-	-	10	10	4000
	Boscombe Down	1021.5	+6	NE	3	z	35	85	6	5	-	-	10	10	1500
	Calshot (Soton.)	1020.5	+2	NNE	3	z	38	85	5	5	-	-	10	10	2500
	Lympne ...	1024.3	-2	ENE	4	o	35	80	7	5	-	-	10	10	1500
	Manston ...	1020.7	-2	ENE	7	z	36	75	6	5	-	-	10	10	2500
2	Shoeburyness ...	1021.5	+2	NE	4	c	37	75	7	5	-	-	10	10	2500
	Felixstowe ...	1022.7	+4	NE	3	c	37	78	7	5	-	-	10	10	2500
	Gorleston ...	1023.1	+4	NE'E	5	c	36	85	6	5	-	-	10	10	2500
	Mildenhall ...	1023.2	+2	NE	3	c	37	75	7	5	-	-	10	10	4000
	Cranwell ...	1024.8	+4	NE'E	2	c	37	85	7	5	-	-	10	10	2500
3	Birmingham	1024.3	+6	ENE	3	c	36	78	6	5	-	-	9+	9+	2500
	Upper Heyford	1023.4	+6	ENE	3	o	36	75	7	5	-	-	10	10	4000
4	Ross-on-Wye ...	1023.0	+6	NE	3	c	37	65	7	5	-	-	10	10	2500
5	Hartland Point	1020.1	+8	E	4	c	38	75	7	5	-	-	9	9	2500
	Bristol	1022.6	+6	NE	3	o/rs	36	85	6	5	-	-	10	10	2500
	Portland Bill ...	1019.7	+6	NE	4	o	35	92	7	5	-	-	10	10	2500
	Plymouth ...	1019.6	+4	E'N	4	z	40	68	6	5	-	-	9	9	2500
	The Lizard ...	1018.4	+6	NE	5	bc	42	75	7	8	6	-	4-6	4-6	1500
	Scilly (St. Mary's)	1018.5	+10	NE'E	4	c	43	75	6	8	6	-	7-8	9+	1500
	Guernsey ...	1016.9	+4	NE	1	rr	41	85	7	8	-	-	10	10	800
6	Pembroke ...	1023.0	+12	E'S	6	c	40	78	6	5	-	-	10	10	1500
7	Holyhead ...	1024.9	+2	E	5	c	41	68	6	5	-	-	9+	9+	4000
	Chester (Sealand)	1025.8	+6	ENE	2	z	39	65	5	5	-	-	10	10	4000
8	Manchester ...	1026.0	+6	NE'E	6	z	39	65	5	5	-	-	9+	9+	2500
10	Spurn Head ...	1025.2	+2	E'N	5	c	39	78	7	5	-	-	10	10	1500
	Catterick ...	1027.7	+6	NE	1	z	38	85	5	5	-	-	10	10	4000
	Tynemouth ...	1028.2	+4	E	3	o	41	68	8	8	-	-	9+	9+	2500
11	St. Abbs Head	1028.8	+12	ESE	2	c	40	76	8	5	2	-	7-8	10	2500
	Leuchars ...	1029.1	+12	-	0	z	40	92	6	5	2	-	4-6	10	2500
12	Renfrew (Abbots I.)	1028.8	+10	-	0	m/f	38	85	4	5	-	-	4-6	4-6	4000
	Eskdalemuir ...	1028.3	+4	E	2	c	37	86	8	5	-	-	9+	9+	1500
	Point of Ayre ...	1026.8	+2	SE	4	c	42	68	8	5	-	-	9+	9+	4000
13A	Tiree	1026.9	+6	SE'S	3	c	42	75	7	5	-	-	9+	9+	4000
13B	Stornoway ...	1027.2	+12	S	3	bc	43	75	7	5	-	5	4-6	4-6	4000
15	Dalwhinnie ...	1028.7	0	S	2	bc	37	85	7	4	6	-	2-3	2-3	2500
	Aberdeen ...	1029.0	+6	-	0	of	39	97	3	5	-	-	10	10	800
	Wick	1028.1	+8	SSW	1	c	41	85	8	5	7	-	4-6	9+	2500
16	Lerwick... ...	1026.7	+2	SW	4	c	44	75	8	5	7	-	4-6	7-8	1500
17	Blacksod Point..	1025.5	+10	E'N	3	b	41	97	7	-	-	9	0	0	-
18	Malin Head ...	1026.9	+8	SSE	2	z	42	75	6	5	-	-	9	9	2500
	Aldergrove ...	1027.0	+10	E	2	z	41	85	5	5	-	-	9+	9+	4000
19	Birr Castle ...	1024.7	+10	ENE	1	c	39	85	7	5	1	-	7-8	10	2500
20	Valentia Obsy. †	1022.6	+14	E	3	bc	48	65	7	5	-	-	2-3	2-3	4000
	Roches Point ...	1022.8	+16	ENE	3	c	41	75	8	8	-	-	9+	9+	1500

OBSERVATIONS at 18h. G.M.T. 16th December

District	Stations.	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sun. 0–9 (30)
1	London (Kew)...	1022.4	+8	ENE	4	z	35	75	6	5	-	-	10	10	1500	1	*
	Croydon	1022.0	+6	NE	4	z	34	75	5	5	-	-	10	10	1500	1	*
	S. Farnborough	1022.3	+4	NE'E	4	z	35	65	6	5	-	-	10	10	2500	1	*
	Boscombe Down	1022.0	+6	NE'N	4	c	34	75	7	5	-	-	10	10	2500	1	*
	Calshot (Soton.)	1021.0	+6	NE'N	4	z	37	65	6	5	-	-	10	10	4000	1	3
	Lympne ...	1020.9	+8	NE'N	5	o	33	75	7	5	-	-	10	10	1500	1	4
	Manston ...	1021.4	+8	E'N	5	z	33	75	6	5	-	-	10	10	1500	0	*
2	Shoeburyness ...	1022.2	+4	NE	5	c	35	75	7	5	-	-	10	10	2500	1	*
	Felixstowe ...	1022.4	0	N	3	z	35	75	6	5	-	-	10	10	1500	1	2
	Gorleston ...	1023.7	+8	NE'N	6	c	34	85	6	5	-	-	10	10	2500	0	3
	Mildenhall ...	1024.0	+8	E'N	5	o	34	75	6	5	-	-	10	10	2500	1	*
	Cranwell ...	1025.3	+6	NE'E	3	c	37	85	6	5	-	-	10	10	2500	0	*
3	Birmingham	1024.6	0	NE	4	c	37	75	5	5	-	-	10	10	1500	1	*
	Upper Heyford	1023.8	+6	NE'E	3	z	35	85	6	5	-	-	10	10	1500	1	*
4	Ross-on-Wye ...	1023.8	+4	NE	3	z	37	75	6	5	-	-	10	10	1500	1	*
5	Hartland Point	1021.7	+12	NE	5	c	39	75	7	8	7	-	7-8	9+	2500	0	3
	Bristol	1023.3	+2	NE	4	z	36	65	6	5	-	-	9	9	2500	1	*
	Portland Bill ...	1020.3	+16	ENE	4	c	37	92	7	5	-	-	10	10	2500	1	4
	Plymouth ...	1021.1	+8	NE	3	z	37	75	6	5	-	-	2-3	2-3	4000	1	1
	The Lizard ...	1019.8	+10	NE	5	c	40	75	7	8	2	-	7-8	9+	1500	0	3
	Scilly (St. Mary's)	1020.2	+16	NE'E	5	c	40	75	6	8	7	-	7-8	9+	2500	1	3
	Guernsey ...	1017.4	+6	NE	3	c/r	42	75	6	8	-	-	10	10	800	1	3
6	Pembroke ...	1025.5	+8	E	5	c	38	75	7	5	-	-	9	9	1500	1	2
7	Holyhead ...	1026.9	+12	ENE	6	c	41	75	6	5	-	-	10	10	2500	1	3
	Chester (Sealand)	1027.3	+14	NE'E	2	z	39	75	5	5	-	-	10	10	2500	1	*
8	Manchester ...	1027.2	+6	NE'E	2	m	39	75	4	5	-	-	10	10	2500	*	*
10	Spurn Head ...	1025.8	+6	ENE	5	oq	39	75	7	5	-	-	10	10	800	0	4
	Catterick ...	1028.8	+10	NE	1	z	38	85	6	5	-	-	10	10	1500	1	*
	Tynemouth ...	1030.7	+8	E	3	c	41	65	7	8	-	-	9+	9+	2500	1	2
11	St. Abbs Head	1029.7	+2	ESE	2	c	40	75	8	5	2	-	7-8	10	2500	0	1
	Leuchars ...	1031.0	+16	-	0	z	40	75	6	5	-	-	10	10	4000	1	*
12	Renfrew (Abbots I.)	1030.4	+12	-	0	cf+	32	97	2	5	-	-	9+	9+	4000	1	*
	Eskdalemuir ...	1029.6	+8	NE'E	2	c	35	85	8	5	-	-	9+	9+	1500	*	*
	Point of Ayre ...	1028.5	+10	E'N	3	c	40	75	7	5	-	-	10	10	2500	0	2
13A	Tiree	1028.3	+8	SSE	2	c	41	75	7	5	-	-	7-8	7-8	4000	0	2
13B	Stornoway ...	1027.8	+2	S	3	c	43	75	7	5	7	-	7-8	9+	2500	1	2
15	Dalwhinnie ...	*	+20	S	2	c	33	92	6	5	-	-	10	10	2500	0	*
	Aberdeen ...	1031.0	+14	-	0	of	39	85	3	5	-	-	10	10	800	1	1
	Wick	1029.5	+4	SSW	2	c	39	85	7	5	7	-	4-6	9+	2500	1	1
16	Lerwick... ...	1026.9	+2	SW	5	c	43	75	8	5	7	-	4-6	7-8	1500	1	*
17	Blacksod Point..	1028.4	+16	-	0	c	39	85	7	-	7	-	0	7-8	-	0	2
18	Malin Head ...	1028.7	+20	S	1	z	40	85	6	5	-	-	9+	9+	1500	0	3
	Aldergrove ...	1029.2	+18	NE'N	1	z	33	85	6	-	-	-	0	0	-	1	*
19	Birr Castle ...	1027.2	+16	ENE	1	c	38	85	7	5	3	-	7-8	9	2500	1	*
20	Valentia Obsy. †	1024.9	+14	E'N	4	b	40	65	7	-	-	-	0	0	-	1	2
	Roches Point ...	1025.3	+20	E'N	3	c	41	75	8	5	-	-	9+	9+	1500	1	3

PAST 24 HOURS.

District	Stations.	Weather. 7h.—13h. 16th (37)	13h.—18h. 16th (38)	18h.—1h. 16th/17th (39)	1h.—7h. 17th (40)
1	London (Kew)...	cz	c	cz	cz
	Croydon	cmidis	cmz	czm	cz
	S. Farnborough	mide	c	zc	z
	Boscombe Down	ami	omc	om	om
	Calshot (Soton.)	idirm	cm	cm	cm
	Lympne ...	pzc	o	omx	omx
	Manston ...	cz	cz	cz	czcm
2	Shoeburyness ...	c	c	c	c
	Felixstowe ...	amc	om	om	om
	Gorleston ...	c	c	cq	cq
	Mildenhall ...	amc	cirs	omcz	cbcc
	Cranwell ...	cmc	ccm	cm	cm
3	Birmingham	c	c	c	c
	Upper Heyford	c	c	cm	cmbcm
4	Ross-on-Wye ...	amczc	c	czcq	c
5	Hartland Point	cbcc	c	c	cbcc
	Bristol	amdsh	cm	cmc	c
	Portland Bill ...	co	c	c	oc
	Plymouth ...	bmcm	cbcmz	bczc	cz
	The Lizard ...	cbc	cbcc	c	c
	Scilly (St. Mary's)	c	cbcc	bcc	c
	Guernsey ...	airm	crir	cir	cq
6	Pembroke ...	cz	c	bcc	c
7	Holyhead ...	amzc	czc	czmc	cmc
	Chester (Sealand)	cmz	cz	cz	cz
8	Manchester ...	cmzz	cz	czzcc	czidcm
10	Spurn Head ...	c	cq	cq	aq
	Catterick ...	ccm	cm	cmcz	amid
	Tynemouth ...	bcc	c	co	o
11	St. Abbs Head	c	c	c	coc
	Leuchars ...	cbccm	cm	cmw	cmw
12	Renfrew (Abbots I.)	cmffmbc	bcmcff	cfc	cffxc
	Eskdalemuir ...	cmc	c	c	c
	Point of Ayre ...	c	c	cbcbc	c
13A	Tiree	bcc	c	c	c
13B	Stornoway ...	cbc	c	c	c
15	Dalwhinnie ...	c	c	*	c
	Aberdeen ...	coff	off	ffoz	ozbc
	Wick	bbc	c	cbcm	mc
16	Lerwick... ...	cpc	c	c	c
17	Blacksod Point..	b	c	b	b
18	Malin Head ...	z	z	czzbc	bcc
	Aldergrove ...	cm	cmbm	bmcmbc	bccm
19	Birr Castle ...	c	c	o	co
20	Valentia Obsy. †	ocbc	bcb	bcb	bxbcm
	Roches Point ...	c	c	c	c

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_o, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_o/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). ⚡gale.
⊕ Solar halo. ☾ lunar halo. ⌓Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

† Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

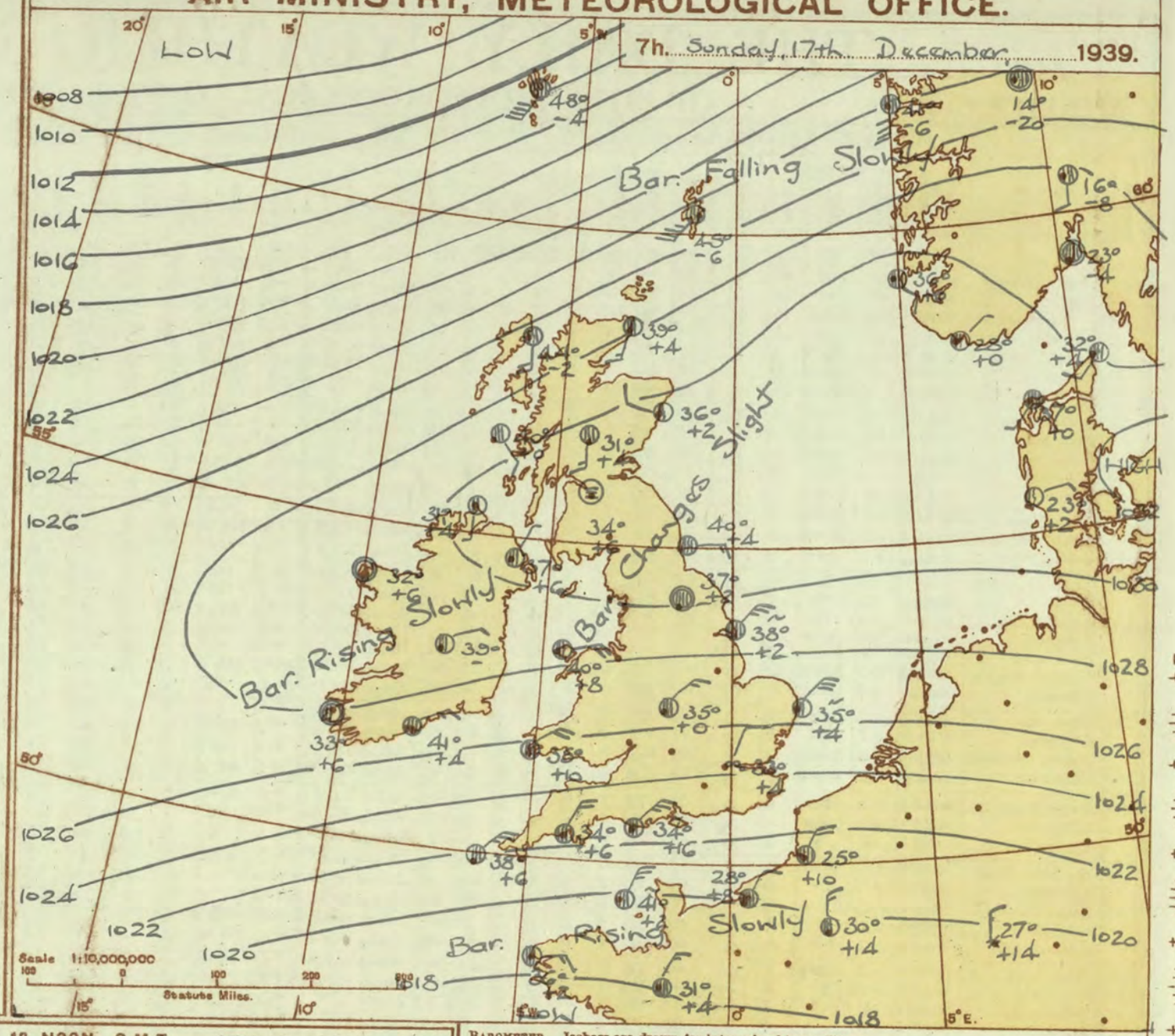
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Sunday, 17th December 1939.



Districts.	Forecasts for the 24 hours commencing 12 noon, G.M.T. 17th December, 1939
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ... 5 S.W. England ~~6 South Wales ...~~	Moderate or fresh northeast wind, strong locally on coast; cloudy; cold.
7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England	Moderate or light northeast wind; cloudy; cold.
~~11 S.E. Scotland~~ 12 S.W. Scotland & Isle of Man.	Light variable wind; mainly cloudy; local fog; rather cold.
~~A. W. Scotld.~~ 13 B.N.W.Scotland.	Moderate or fresh southwest wind; cloudy; average temperature.
14 Mid Scotland 15 N. E. Scotland ~~16 Orkneys and~~ Shetlands	Strong to gale southwest wind; cloudy, occasional slight rain; mild.
~~17 N. W. Ireland~~ 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Light variable wind; variable cloud, local fog; rather cold.

Barometer. Isobars are drawn for intervals of two millibars.
Wind, Weather Symbols. For explanation see opposite page.
Sea Disturbance. Rough. High.
Barometric Change from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

A belt of high pressure extends from the South Baltic across South Scotland and Ireland. Fresh cold east winds will continue over most of England and weather will be cloudy almost everywhere.

FURTHER OUTLOOK.

Little change.

Time of Issue of Gale Warnings.

Cone hoisted in Shetland at 0845 17/12/39.

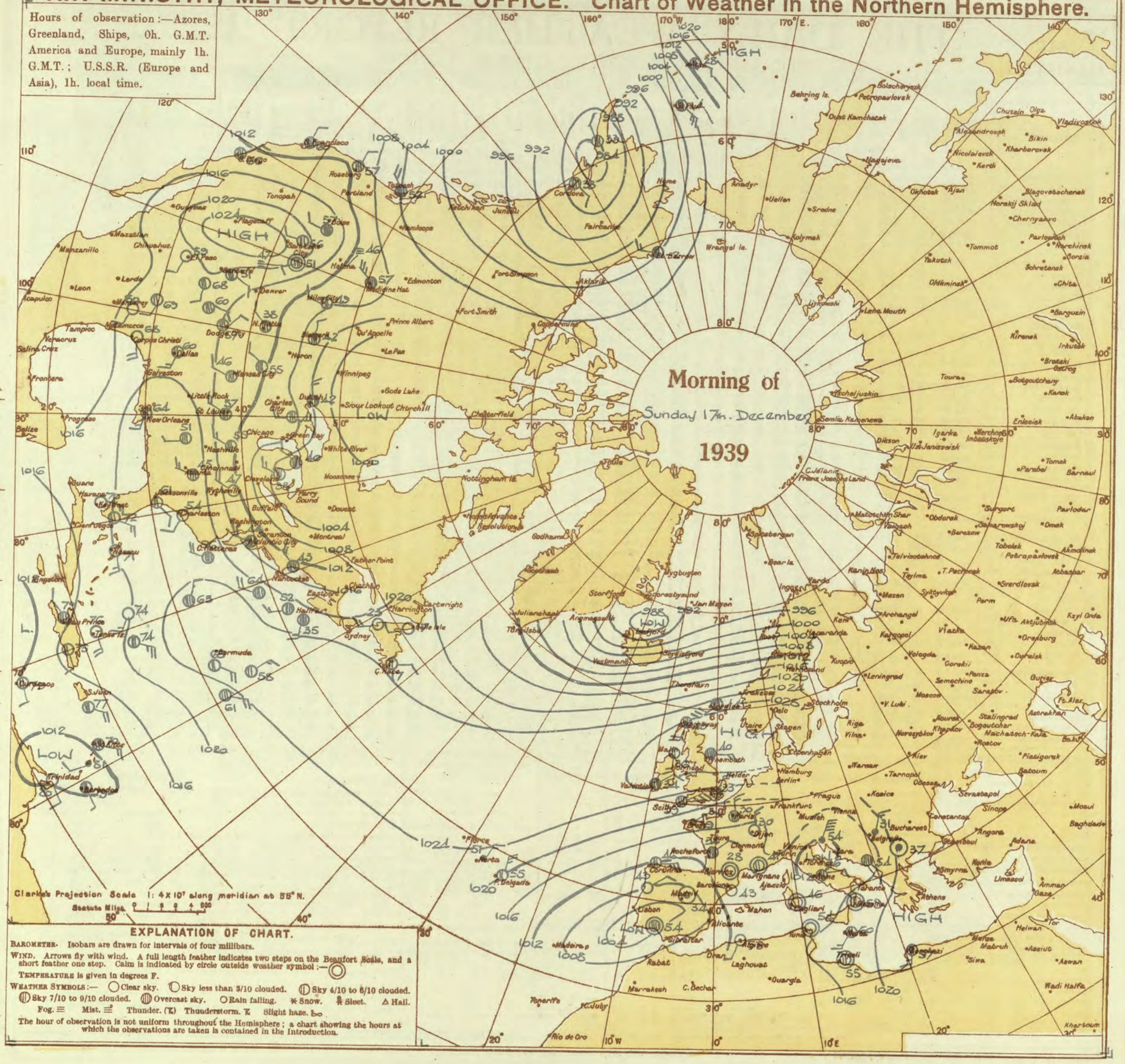
Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

Hours of observation :—Azores, Greenland, Ships, 0h. G.M.T. America and Europe, mainly 1h. G.M.T.; U.S.S.R. (Europe and Asia), 1h. local time.



EXPLANATION OF CHART.

BAROMETER. Isobars are drawn for intervals of four millibars.

WIND. Arrows fly with wind. A full length feather indicates two steps on the Beaufort Scale, and a short feather one step. Calm is indicated by circle outside weather symbol :—

TEMPERATURE is given in degrees F.

WEATHER SYMBOLS :— Clear sky. Sky less than 3/10 clouded. Sky 4/10 to 6/10 clouded. Sky 7/10 to 9/10 clouded. Overcast sky. Rain falling. Snow. Sleet. Hail. Fog. Mist. Thunder. Thunderstorm. Slight haze.

The hour of observation is not uniform throughout the Hemisphere; a chart showing the hours at which the observations are taken is contained in the Introduction.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Sunday 17th. December 1939.

No. 28,514

OBSERVATIONS at 1 hr. G.M.T. 17th. December

District	Stations	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	Humid. % (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1023.4	+6	NE	3	2	33	75	6	5	-	-	10	10	1500
	S. Farnborough	226	1023.9	+6	NE	4	2	33	75	6	5	-	-	10	10	2500
	Boscombe Down	417	1023.5	+4	NE	4	2	32	78	6	5	-	-	10	10	1500
	Calshot (Sthmtn.)	8	1022.7	+2	NE'N	4	2	35	75	5	5	-	-	10	10	2500
	Lympne ...	346	1022.6	+2	WSW	6	0	32	85	6	5	-	-	10	10	1500
	Manston ...	154	1023.0	+6	ENE	5	2	38	75	6	5	-	-	9+	9+	1500
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1024.1	+6	NE	4	2	35	75	6	5	-	-	10	10	2500
	Gorleston ...	5	1025.8	+2	NE'E	6	0	34	75	6	5	-	-	9+	9+	2500
	Mildenhall ...	19	1026.2	+8	NE'E	4	0	33	75	7	5	-	-	10	10	2500
	Cranwell ...	240	1027.1	+2	NE'E	3	2	35	85	6	5	-	-	10	10	2500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1025.4	+2	ENE	4	2	32	75	6	5	-	-	10	10	1500
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1022.4	+4	ENE	5	0	39	85	6	6	3	-	9+	9+	2500
	Bristol ...	209	1024.9	+6	ENE	4	0	33	75	7	5	-	-	9+	9+	2500
	Portland Bill ...	32	1021.8	+8	ENE	5	0	35	92	7	5	-	-	10	10	1500
	Plymouth ...	82	1022.7	+4	ENE	4	0	36	65	7	5	-	-	10	10	4000
	The Lizard ...	240	1022.6	-2	NE	4	0	38	75	7	8	2	-	7-8	9+	1500
	Scilly (St. Mary's)	163	1021.3	0	NE'E	6	0	39	65	7	8	6	-	7-8	10	1500
	Guernsey ...	175	1016.4	0	NE	5	0	40	75	6	8	-	-	10	10	1500
6	Pembroke ...	142	1024.4	-2	E'N	4	0	39	85	7	5	-	-	7-8	10	1500
7	Holyhead ...	26	1027.4	-6	NE'E	5	0	40	88	6	5	-	-	10	10	2500
	Chester (Sealand)	16	1028.8	-2	ENE	3	2	39	75	5	5	-	-	10	10	2500
8	Manchester ...	70	1028.6	-2	ENE	4	0	38	75	7	5	-	-	10	10	2500
10	Spurn Head ...	29	1027.8	0	E'N	1	0q	39	75	7	5	-	-	10	10	800
	Catterick ...	175	1030.6	+6	E	1	2	37	75	6	5	-	-	10	10	1500
	Tynemouth ...	108	1031.3	0	E	3	0	40	75	7	5	-	-	10	10	1500
11	St. Abbs Head	280	1030.9	+4	S	2	0	39	85	8	5	6	-	7-8	9+	2500
	Leuchars ...	36	1031.5	0	-	0	2	37	92	6	5	-	-	10	10	4000
12	Renfrew (Abbots I.)	19	1031.5	-6	-	0	0f	38	92	2	5	-	-	9	9	1500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1029.2	-4	ESE	2	bc	39	85	7	4	-	-	2-3	2-3	2500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1028.0	0	SSW	4	0	43	65	6	5	2	-	7-8	10	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1028.7	-10	SSW	3	bc	37	85	6	5	7	-	4-6	4-6	1500
16	Lerwick ...	156	1025.6	-8	SW	6	0	44	75	8	5	2	-	7-8	10	1500
17	Blacksod Point	18	1029.3	0	E	1	b	38	75	8	-	-	-	0	0	-
18	Malin Head ...	84	1030.1	+2	S	3	2	39	75	6	8	-	-	4-6	4-6	2500
	Aldergrove ...	268	1029.7	-8	ESE	1	2	36	85	6	5	-	-	4-6	4-6	2500
19	Birr Castle ...	173	1028.3	0	ENE	1	0	38	85	7	5	-	-	10	10	2500
20	Valentia Obsy.	30	1027.7	+2	NE	1	b	34	85	7	5	-	-	Tr	Tr	4000
	Roches Point	22	1026.9	+2	NE'E	3	0	39	85	8	5	-	-	9+	9+	1500

OBSERVATIONS at 7 hr. G.M.T. 17th. December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount Low 0–10 (26)	Cloud. Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1024.8	+4	NE'E	4	2	34	65	6	5	-	-	10	10	1500	1	*
	Croydon ...	1024.1	+4	NE	2	2	33	75	6	5	7	-	7-8	10	2500	1	*
	S. Farnborough	1024.5	+6	NE	4	2	33	75	6	5	-	-	10	10	2500	1	*
	Boscombe Down	1024.6	+4	NE'E	4	2	31	85	6	5	-	-	10	10	2500	0	*
	Calshot (Sthmtn.)	1023.4	+4	NE'E	4	2	35	75	6	5	-	-	10	10	2500	1	2
	Lympne ...	1023.9	+6	NE'E	4	2	32	85	6	5	-	-	10	10	1500	1	§ 4
	Manston ...	1023.5	+6	E	5	2	34	85	6	5	-	-	10	10	1500	0	*
2	Shoeburyness ...	1024.3	+2	NE	6	0	36	85	6	5	-	-	7-8	7-8	1500	1	*
	Felixstowe ...	1024.2	+2	NEW	4	2	36	75	7	5	-	-	10	10	2500	0	2
	Gorleston ...	1026.3	+4	ENE	6	0	35	75	7	8	-	-	9	9	2500	0	4
	Mildenhall ...	1026.6	-6	NE'E	4	0	33	75	7	5	-	-	9+	9+	2500	1	*
	Cranwell ...	1027.6	+8	ENE	3	2	35	85	6	5	-	-	10	10	2500	0	*
3	Birmingham ...	1026.8	0	ENE	3	0	35	75	6	5	-	-	9+	9+	800	1	*
	Upper Heyford	1025.5	+2	ENE	4	0	31	85	7	5	-	-	10	10	2500	1	*
4	Ross-on-Wye	1025.8	0	NE	4	0	33	75	7	5	-	-	9+	9+	2500	1	*
5	Hartland Point	1023.2	+2	NE	5	0	34	85	8	8	-	-	7-8	7-8	2500	0	3
	Bristol ...	1025.2	0	ENE	5	0	32	75	7	5	-	-	7-8	7-8	2500	1	*
	Portland Bill ...	1023.1	+10	ENE	5	0	34	92	7	5	-	-	10	10	2500	1	4
	Plymouth ...	1023.5	+6	NE	4	0	34	75	7	5	-	-	9	10	4000	1	2
	The Lizard ...	1022.0	+2	NE	5	0	37	75	8	8	2	-	7-8	9+	1500	0	2
	Scilly (St. Mary's)	1022.1	+6	NE'E	5	0	38	65	6	8	6	-	4-6	9+	2500	1	3
	Guernsey ...	1018.6	+2	NE	5	0q	41	86	7	8	-	-	10	10	1500	1	4
6	Pembroke ...	1025.6	+10	ENE	4	0	35	75	8	5	2	-	4-6	7-8	1500	1	2
7	Holyhead ...	1028.1	+8	E'N	4	0	40	75	8	5	-	-	9+	9+	2500	1	2
	Chester (Sealand)	1028.5	0	NE	2	2	38	75	6	5	-	-	10	10	2500	1	*3
8	Manchester ...	1028.6	+4	ENE	3	2	38	85	6	5	-	-	10	10	2500	1	*
10	Spurn Head ...	1028.2	+2	ENE	3	0q	38	65	7	5	-	-	10	10	1500	0	4
	Catterick ...	1030.4	+2	-	0	0/0	37	85	6	5	-	-	10	10	1500	1	*
	Tynemouth ...	1031.4	+4	E	3	0	40	75	7	5	-	-	10	10	1500	1	2
11	St. Abbs Head	1031.4	+4	SW	1	0	38	85	8	5	2	-	7-8	10	2500	0	1
	Leuchars ...	1031.4	+6	-	0	2	37	85	6	5	2	-	9	10	1500	1	*
12	Renfrew (Abbots I.)	1031.8	+6	-	0	0f	34	92	3	5	-	-	10	10	2500	1	*
	Eskdalemuir ...	1031.0	+4	E	3	0	35	85	8	5	-	-	10	10	1500	1	*
	Point of Ayre ...	1029.8	+6	S'E	3	0	40	85	7	5	-	-	9+	9+	2500	0	2
13A	Tiree	1029.4	0	SE'S	2	0	40	85	7	5	-	-	9+	9+	4000	0	2
13B	Stornoway ...	1027.0	-2	S	4	0	44	65	6	5	2	-	9	10	2500	1	2
15	Dalwhinnie ...	*	+4	S	3	0	31	85	6	5	-	-	10	10	1500	5	*
	Aberdeen ...	1031.1	+2	W'N	2	bc	36	75	8	5	-	-	4-6	4-6	5700	1	1
	Wick ...	1028.4	+4	SSW	3	0	39	75	7	5	7	-	7-8	9+	1500	1	1
16	Lerwick ...	1024.5	-6	SW	7	0	45	85	8	5	2	-	7-8	10	1500	1	*
17	Blacksod Point	1029.5	+6	-	0	b	32	92	8	-	-	-	0	0	-	3	2
18	Malin Head ...	1030.4	+4	S	1	bc	31	85	7	4	-	-	4-6	4-6	4000	0	2
	Aldergrove ...	1030.3	+6	NE'N	1	0	37	86	7	5	-	-	10	10	2500	1	*
19	Birr Castle ...	1028.2	N	ENE	1	0	39	85	7	5	1	-	10	10	2500	1	
20	Valentia Obsy.	1028.2	+6	-	0	bc	33	85	6	5	-	-	4-6	4-6	4000	1	*2
	Roches Point	1026.4	+4	NE'E	3	0	41	86	6	5	-	-	9+	9+	1500	1	3

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F. (31)	Temperature. Min. Night 18h–7h °F (32)	Temperature. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 16th Hrs. (36)
1	London (Kew)	38	33	32	-	-	0.0
	Croydon ...	37	32	32	Tr	-	0.0
	S. Farnborough	38	32	31	Tr	-	0.0
	Boscombe Down	36	34	29	Tr	-	0.0
	Calshot (Sthmtn.)	39	34	34	Tr	-	0.0
	Lympne ...	36	31	31	-	-	0.0
	Manston ...	39	30	32	Tr	-	0.0
2	Shoeburyness ...	39	34	33	-	-	0.0
	Felixstowe ...	34	33	33	-	-	0.0
	Gorleston ...	41	34	34	-	-	*
	Mildenhall ...	37	32	31	Tr	-	0.0
	Cranwell ...	38	34	33	-	-	0.0
3	Birmingham ...	37	34	32	-	-	0.0
	Upper Heyford	37	30	*	-	-	*
4	Ross-on-Wye	37	32	31	-	-	0.0
5	Hartland Point	39	29	32	-	-	1.3
	Bristol ...	36	31	29	Tr	-	0.0
	Portland Bill ...	41	33	*	-	-	*
	Plymouth ...	40	34	33	-	-	3.7
	The Lizard ...	43	35	*	Tr	-	3.1
	Scilly (St. Mary's)	43	37	*	-	-	2.1
	Guernsey ...	43	39	36	1	0.4	0.0
6	Pembroke ...	40	34	*	-	-	0.0
7	Holyhead ...	42	39	*	-	-	*
	Chester (Sealand)	39	37	36	-	-	0.0
8	Manchester ...	*	37	34	*	Tr	0.0
10	Spurn Head ...	40	37	*	-	-	0.0
	Catterick ...	38	36	35	-	Tr	0.0
	Tynemouth ...	*	*	37	-	-	*
11	St. Abbs Head	41	37	*	-	-	*
	Leuchars ...	40	36	35	-	-	0.0
12	Renfrew (Abbots I.)	40	31	28	-	-	0.0
	Eskdalemuir ...	37	34	34	-	-	0.8
	Point of Ayre ...	44	38	*	-	-	0.3
13A	Tiree	43	39	37	-	-	0.0
13B	Stornoway ...	43	43	*	-	-	2.9
15	Dalwhinnie ...	37	27	21	-	-	0.0
	Aberdeen ...	40	36	31	-	-	0.0
	Wick ...	43	34	*	-	-	*
16	Lerwick ...	46	42	*	Tr	-	0.0
17	Blacksod Point	42	31	*	-	-	*
18	Malin Head ...	43	29	*	-	-	0.0
	Aldergrove ...	42	31	28	-	-	0.0
19	Birr Castle ...	40	35	33	-	-	0.0
20	Valentia Obsy.	39	30	21	-	Tr	3.2
	Roches Point	44	39	*	-	-	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon.	Weather. Night.	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h.
Kew ...	18	c2	c	c2	38	33	32	-	-	0.0	*	*	6
Croydon ...	217	c m d 3	c m 3	c2 m	37	32	32	Tr	-	0.0	*	*	
Greenwich (Royal Observatory) ...	149	c m 3	c m 3	c m 0	37	32	31	-	-	0.0	72	84	5
City (Bunhill Row) ...	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	38	34	33	-			57	73	*
Regents Pk. (Botanic Gardens)‡ ...	168	*	*	*									*
Camden Square ...	110	0	0	*	40	39	31	-	-	*	*	76	*
Kensington ...	80	c	c	*	38	33	32	-	-		72	74	*
Hampstead Observatory ...	450										*		*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 17th

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
0.1	20h 16th	<0.1	7h 17th

FOREIGN OBSERVATIONS.

Stations.	18h. G.M.T. 16th. December: Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	7h. G.M.T. 17th. December: Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
Paris ...	1016.3	N	4	0	34	1020.1	N	3	0	30	36	30	-	-
Brussels ...														
Berlin ...														
Zürich ...														
Rome ...	1011.1	-	0	bcl	52	1011.6	E'S	2	2	45	*	*	0.2	-

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

		Objects not visible at
0	Dense fog	55 yards.
1	Thick fog	220 ,,
2	Fog	550 ,,
3	Moderate fog	1,100 ,,
4	Mist or haze	1½ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6½ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

0	Calm.	5	Very rough.
1	Smooth.	6	High.
2	Slight.	7	Very high.
3	Moderate.	8	Preciptious.
4	Rough.	9	Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Monday 18th December 1939.

No. 28,515

OBSERVATIONS at 13h. G.M.T. 17th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1024·4	-10	NE'N	5	zo	37	75	5	5	-	-	9+	9+	1500
	Croydon ...	1024·2	-6	NE'N	3	m	36	85	4	5	-	-	10	10	1500
	S. Farnborough	1024·5	-10	NE	3	zo	35	75	6	5	-	-	10	10	1500
	Boscombe Down	1024·7	-10	NNE	4	o	33	92	7	5	-	-	10	10	1500
	Calshot (Soton.)	1023·7	-6	NNE	3	zo	36	75	5	5	-	-	10	10	2500
	Lympne ...	1023·6	-8	E'N	7	c	33	75	7	5	-	-	9+	9+	1500
	Manston ...	1024·1	-10	E	4	zo	36	75	6	5	-	-	9+	9+	1500
2	Shoeburyness ...	1024·4	-4	NE'E	5	c	38	75	8	5	-	-	9+	9+	2500
	Felixstowe ...														
	Gorleston ...	1027·1	-10	NE'E	6	c	36	75	7	2	-	-	7-8	7-8	2500
	Mildenhall ...														
	Cranwell ...	1028·0	-8	ENE	3	c	38	65	8	5	-	-	9+	9+	2500
3	Birmingham	1027·1	-8	ENE	4	c	36	75	6	5	-	-	9+	9+	2500
	Upper Heyford	1026·7	-8	NE	4	c	34	85	8	5	-	-	9+	9+	2500
4	Ross-on-Wye ...	1026·4	-6	ENE	3	c	35	75	7	5	-	-	9+	9+	2500
5	Hartland Point	1023·9	-12	NE	4	c	34	92	8	5	-	-	9	9	2500
	Bristol ...	1026·2	-10	NE'E	4	zo	33	75	6	5	-	-	9+	9+	2500
	Portland Bill ...	1023·1	-8	NE	5	o	36	92	7	5	-	-	10	10	2500
	Plymouth ...	1024·0	-10	NE	4	zo	33	65	7	5	-	-	9+	9+	1500
	The Lizard ...	1021·5	-10	NE	5	c	35	86	7	5	2	-	9	10	1500
	Scilly (St. Mary's)	1023·5	-4	NE	4	c	37	75	7	8	7	-	7-8	10	2500
	Guernsey ...	1020·4	-2	ENE	3	c	39	85	7	8	-	-	10	10	2500
6	Pembroke ...	1025·9	-6	E'N	5	bc	37	75	8	8	6	-	4-6	4-6	2500
7	Holyhead ...	1027·6	-14	E'N	5	c	41	75	7	5	-	-	9+	9+	2500
	Chester (Sealand)	1029·1	-8	E	1	zo	39	65	6	5	-	-	9+	9+	4000
8	Manchester ...	1029·3	-6	ENE	4	zo	39	65	6	5	-	-	9+	9+	2500
10	Spurn Head ...	1028·8	-4	E'N	4	c	40	65	8	5	-	-	9+	9+	1500
	Catterick ...	1030·3	-10	-	0	o	38	75	8	6	-	-	10	10	1500
	Tynemouth ...	1030·9	-8	E	3	o	41	75	8	6	-	-	10	10	1500
11	St. Abbs Head	1030·9	-8	SW	2	c	37	92	8	8	2	-	7-8	10	2500
	Leuchars ...	1030·9	-18	SW	2	c	39	75	8	5	-	-	9+	9+	4000
12	Renfrew (Abbots I.)	1031·5	-6	SSE	1	zo	38	75	6	5	-	-	10	10	2500
	Eskdalemuir ...	1030·7	-6	SE'S	2	o	36	75	7	5	-	-	10	10	1500
	Point of Ayre ...	1029·8	-8	SE'E	3	c	41	65	8	5	7	-	4-6	10	4000
13A	Tiree ...	1029·4	0	SSE	3	c	40	85	7	5	-	-	9	9	4000
13B	Stornoway ...	1026·8	-2	SSW	5	c	44	65	6	5	7	-	7-8	10	2500
15	Dalwhinnie ...	1030·5	-10	S	3	b	33	75	8	4	-	1	Tr	1	4000
	Aberdeen ...	1029·2	-20	SW'S	3	b	40	65	6	5	-	-	Tr	Tr	4000
	Wick ...	1028·0	-8	SSW	2	c	40	86	7	5	7	8	4-6	9	2500
16	Lerwick...	1023·2	0	SW	7	c	46	86	7	8	7	-	7-8	10	1500
17	Blacksod Point..	1029·5	-8	E'S	1	c	40	75	7	-	7	-	6	10	-
18	Malin Head ...	1029·9	-6		1	c	38	85	7	5	-	-	7-8	7-8	4000
	Aldergrove ...	1030·2	-6	-	0	zo	30	85	5	5	-	-	10	10	4000
19	Birr Castle ...	1028·3	-4	ENE	1	c	40	85	7	5	1	-	7-8	10	2500
20	Valentia Obsy. †	1027·7	-10	NE	1	c	41	75	7	5	-	-	9+	9+	4000
	Roches Point ...	1026·9	-8	NE'E	3	c	41	75	8	5	-	-	9	9	2500

OBSERVATIONS at 18h. G.M.T. 17th December.

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
1	London (Kew)...	1024·6	+2	NE'N	4	zo	35	65	5	5	-	-	10	10	1500	1	*
	Croydon ...	1024·2	0	NNE	3	m	34	75	4	5	-	-	10	10	2500	1	*
	S. Farnborough	1024·6	+2	NE'N	3	zo	34	75	6	5	-	-	10	10	2500	1	*
	Boscombe Down	1024·4	+2	NE'N	3	o	33	92	7	5	-	-	10	10	2500	0	*
	Calshot (Soton.)	1023·4	-2	NE'N	4	zo	35	75	5	-	-	-	10	10	2500	1	2
	Lympne ...	1023·9	+6	ENE	3	o/d	32	92	7	5	-	-	10	10	1500	1	§4
	Manston ...	1024·3	+6	ESE	4	zo	34	85	6	5	-	-	10	10	1500	0	*
2	Shoeburyness ...	1024·3	-2	NE	4	o	37	75	8	5	-	-	10	10	1500	1	*
	Felixstowe ...	1025·1	0	ENE	4	o	37	85	7	5	-	-	10	10	1500	1	4
	Gorleston ...	1026·0	-2	E'N	5	bc	37	85	6	5	-	-	4-6	4-6	2500	0	3
	Mildenhall ...	1026·2	+2	NE'N	2	zo	30	92	6	-	-	-	0	0	-	1	*
	Cranwell ...	1027·9	+2	ENE	3	c	36	85	7	5	-	-	9+	9+	2500	0	*
3	Birmingham	1027·1	+6	NE	3	c	35	65	5	5	-	-	9+	9+	1500	1	*
	Upper Heyford	1026·3	+2	NE	3	bc	31	85	7	5	-	-	2-3	2-3	3500	0	*
4	Ross-on-Wye ...	1026·2	+4	NE'E	2	c	35	75	7	5	-	-	9	9	2500	1	*
5	Hartland Point	1024·0	+4	ENE	4	c	35	75	8	5	2	-	7-8	10	2500	0	3
	Bristol ...	1025·9	+6	ENE	2	zo	33	75	6	5	-	-	7-8	7-8	2500	1	*
	Portland Bill ...	1022·4	-2	ENE	5		37	92	7	5	-	-	10	10	2500	1	4
	Plymouth ...	1023·1	0	NE	4	zo	36	65	6	5	-	-	10	10	2500	1	2
	The Lizard ...	1020·4	0	NE	5	c	38	75	7	8	2	-	9	10	1500	0	2
	Scilly (St. Mary's)	1022·7	+2	NE'N	4	c	36	75	7	8	-	-	10	10	1500	1	3
	Guernsey ...	1020·0	+6	ENE	3	c	38	85	7	8	-	-	10	10	1500	1	4
6	Pembroke ...	1026·7	+4	NE	3	bc	34	85	8	5	-	-	2-3	2-3	2500	1	1
7	Holyhead ...	1028·1	+6	ENE	4	zo	39	75	5	-	-	-	0	0	-	1	2
	Chester (Sealand)	1028·7	+4	-	0	zo	37	75	6	5	-	-	9+	9+	2500	1	*
8	Manchester ...	1028·8	0	NE	1	zo	38	75	5	5	-	-	10	10	2500	0	*
10	Spurn Head ...	1028·8	+2	E'N	4	c	40	75	7	8	-	-	9+	9+	1500	0	3
	Catterick ...	1030·3	+6	E	1	o	37	85	7	5	-	-	10	10	1500	1	
	Tynemouth ...	1031·0	+4	SE	2	o	41	75	8	5	-	-	10	10	1500	1	2
11	St. Abbs Head	1030·5	0	S	2	c	38	85	8	5	2	-	7-8	10	2500	0	!
	Leuchars ...	1030·4	+2	WSW	3	zo	37	75	6	5	-	-	10	10	2500	1	*
12	Renfrew (Abbots I.)	1031·4	-6	WSW	1	zo	38	75	5	5	-	-	10	10	2500	1	*
	Eskdalemuir ...	1030·5	+2	SE'E	1	o	35	85	7	5	-	-	10	10	1500	1	*
	Point of Ayre ...	1029·5	0	SE'E	2	c	40	75	8	-	7	-	0	9+	-	0	2
13A	Tiree ...	1028·5	0	SSW	3	c	41	75	7	5	-	-	9+	9+	4000	0	2
13B	Stornoway ...	1026·2	+4	SSW	4	c	44	65	6	5	7	-	7-8	10	2500	1	6
15	Dalwhinnie ...	*	0	N	1	b	24	92	7	-	-	-	0	0	-	3	*
	Aberdeen ...	1029·4	0	SW'S	2	b	35	85	5	-	-	-	0	0	-	0	1
	Wick ...	1027·4	+2	SW	2	b	35	92	7	5	-	-	1	1	2500	1	2
16	Lerwick...	1022·5	-2	SW	7	c	46	75	6	8	2	-	7-8	10	800	1	*
17	Blacksod Point..	1029·1	+2	-	0	c	38	75	7	-	7	-	0	10	-	0	2
18	Malin Head ...	1030·0	+2	S	1	zo	38	75	6	5	-	-	9+	9+	2500	0	2
	Aldergrove ...	1030·0	+2	-	0	zo	38	75	5	5	-	-	10	10	2500	1	*
19	Birr Castle ...	1028·0	+2	NE	1	c	39	85	7	5	1	-	7-8	10	2500	1	*
20	Valentia Obsy. †	1027·5	+6	NE'E	1	c	38	85	7	5	-	-	9+	9+	4000	1	1
	Roches Point ...	1026·3	-2	NE	3	c	40	75	8	5	-	-	9+	9+	2500	1	3

PAST 24 HOURS. WEATHER.

District	Stations	7h.—13h. 17th (37)	13h.—18h. 17th (38)	18h. 17th to 1h. 18th (39)	1h.—7h. 18th (40)
1	London (Kew)...	czo	czo	cmo	czcidomo
	Croydon ...	pcmom	cm moz	czcmo	czomo
	S. Farnborough	zocq	zoc	zoidmoc	moc
	Boscombe Down	pmocpso	c	cmocso	oroso mo
	Calshot (Soton.)	cmo	cmo	cidocmo	cmoomo
	Lympne ...	omoc	coidoo	o	o
	Manston ...	czo	cmo	czocmo	cmo
2	Shoeburyness ...	oc	c		c
	Felixstowe ...		c	ccmo	cmo
	Gorleston ...	c	cbc	bcc	c
	Mildenhall ...		bbcb	bmoomo	omocmo
	Cranwell ...	cmoc	#	ccmo	cmo
3	Birmingham	c	cbcc	cbcc	co
	Upper Heyford	c	cbc	cmododoc	cdodocmo
4	Ross-on-Wye ...	c	cbbcc	c	como
5	Hartland Point	c	c	c..	c
	Bristol ...	c	cmo	cbcmoc	crosododo
	Portland Bill ...	c	o	o	o
	Plymouth ...	c	cozo	czo	zoidododo
	The Lizard ...	c	c	c	ddm
	Scilly (St. Mary's)	c	c	c	ciro
	Guernsey ...	cq	c	co	o
6	Pembroke ...	cbc	cbc	bc	c
7	Holyhead ...	c	czob	bzoob	bmoc
	Chester (Sealand)	czo	czo	czo	czo
8	Manchester ...	cmozo	czo	czobczo	bczobcc
10	Spurn Head ...	cq	c	cq	c
	Catterick ...	c	c	c	ccmoc
	Tynemouth ...	o	o	o	oc
11	St. Abbs Head	idoc	c	oco	co
	Leuchars ...	cmooc	ccmo	cmo	cmo
12	Renfrew (Abbots I.)	cmo	cmozo	czo	cmozo
	Eskdalemuir ...	c	mc	c	c
	Point of Ayre ...	c	c	cbc	c
13A	Tiree ...	c	c	c	c
13B	Stornoway ...	c	c	c	c
15	Dalwhinnie ...	cbc	b	**	b
	Aberdeen ...	bcbzo	bzox	bxzo	bxzo
	Wick ...	c	cbcb	bc	bbcc
16	Lerwick...	c	cmo	cqmo (gale)	cqm (gale)
17	Blacksod Point..	c	c	o	o
18	Malin Head ...	c	czozc	zo	c
	Aldergrove ...	cmo		czo	cmo
19	Birr Castle ...	c	c	c	c
20	Valentia Obsy. †	cxmocbcc	c	bcxcxbx	cxbcxbx
	Roches Point ...	c	c	c	c

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_o, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_o/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.

q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain.
rr, continuous rain.
<, less than (for cloud height). gale.
Solar halo. lunar halo. Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

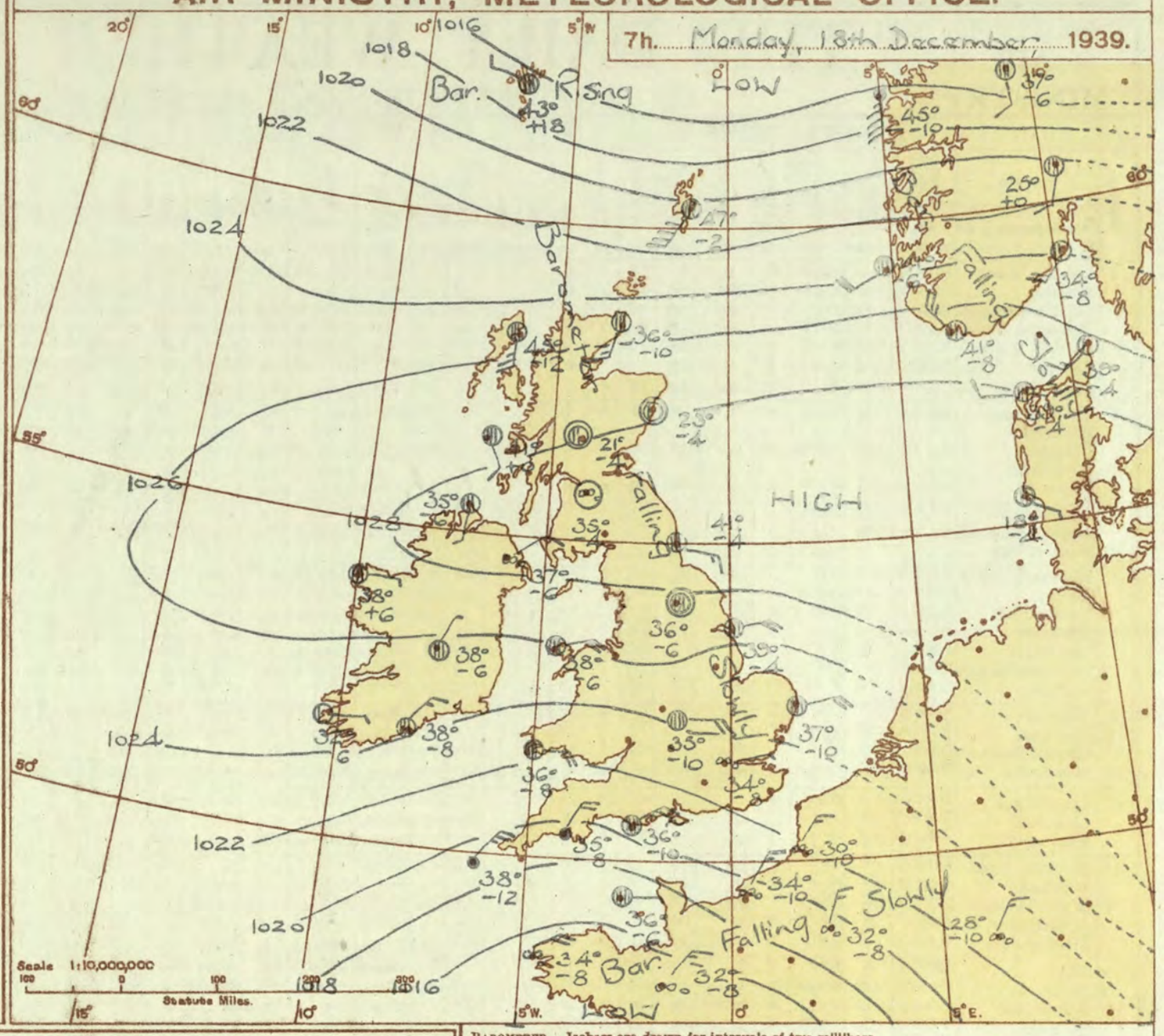
Cloud form abbreviations:— Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

Note.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

AIR MINISTRY, METEOROLOGICAL OFFICE.



Districts.	Forecasts for the 24 hours commencing 12 noon, G.M.T. 18th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Moderate east wind, fresh locally on coast; dull; probably slight rain or sleet later; cold.
5 S.W. England 6 South Wales ...	Fresh or strong east or northeast wind; dull; occasional rain or sleet; cold.
7 North Wales ...	As 1 - 4.
8 N.W. England 9 N. Midlands ... 10 N.E. England	Light or moderate east or northeast wind; dull, slight local drizzle; rather cold.
11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Light variable wind; mainly cloudy; rather cold.
13 A. W. Scotld. B. N.W. Scotland.	Wind southwest strong locally, veering and moderating; cloudy; occasional rain, then mainly fair; mild.
14 Mid Scotland 15 N. E. Scotland	Light or moderate southwest to west wind; mainly fair; somewhat milder; but frost locally at night.
16 Orkneys and Shetlands	As 13B
17 N. W. Ireland 18 N. E. Ireland	As 11 - 13 B
19 S. E. Ireland 20 S. W. Ireland	As 8 - 10.

Barometer. Isobars are drawn for intervals of two millibars.
Wind, Weather Symbols. For explanation see opposite page.
Sea Disturbance. Rough. High.
Barometric Change from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

Pressure is now highest in South Russia.

A ridge of high pressure extending across Denmark to Scotland is decreasing in intensity and a depression over Portugal is spreading northeast.

Except at a few places in Scotland weather will be cloudy or dull and locall drizzle will occur in England.

FURTHER OUTLOOK.

Mainly dull, occasional rain or drizzle in England; somewhat less cold.

GALE WARNING.

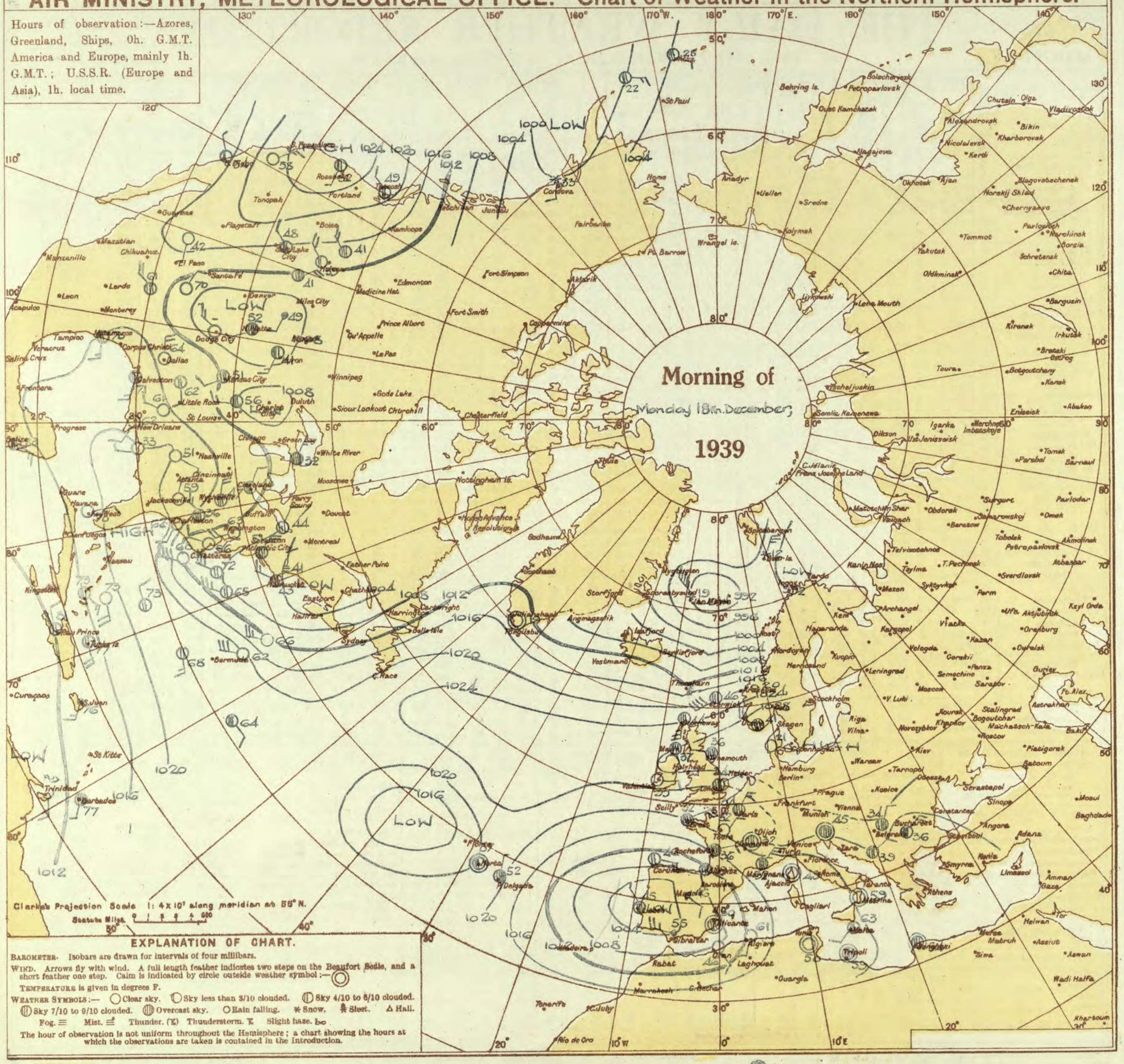
Gale Warning issued at 0845 on 17th in District 16.

Forecasts issued at 1000 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Monday 18th December 1939.

No. 28,515

OBSERVATIONS at 1 hr. G.M.T. 18th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1024·4	-2	ENE	1	2o	34	75	6	5	–	–	10	10	2500
	S. Farnborough	226	1024·5	-2	ENE	3	2o	34	85	5	5	–	–	10	10	2500
	Boscombe Down	417	1024·2	-8	E	2	rs	33	97	5	5	–	–	10	10	450
	Calshot (Sthmtn.)	8	1023·6	-2	NE'E	4	od	35	85	5	5	–	–	10	10	1500
	Lympne ...	346	1024·5	-6	E'N	3	o	32	85	7	5	–	–	10	10	1500
	Manston ...	154	1024·8	-2	ESE	3	2o	34	85	6	5	–	–	10	10	1500
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1025·3	-2	NE	3	2o	36	85	6	5	–	–	10	10	1500
	Gorleston ...	5	1026·5	-2	E'N	4	c	37	75	6	5	–	–	10	10	2500
	Mildenhall ...	19	1026·5	+2	NE'E	3	o	35	92	6	5	–	–	10	10	1500
	Cranwell ...	240	1027·2	-6	NE	2	2o	37	92	6	5	–	–	10	10	1500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1026·1	-2	NE	3	dodo	32	97	5	5	–	–	10	10	450
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1022·5	-12	NE	5	c	37	85	8	5	2	–	7·8	10	2500
	Bristol ...	209	1024·0	-10	ENE	4	c	34	85	7	5	–	–	10	10	1500
	Portland Bill ...	32	1022·6	-6	ENE	5	o	35	92	7	5	–	–	10	10	2500
	Plymouth ...	82	1022·6	-10	NE'E	4	2o	35	75	6	6	–	–	10	10	2500
	The Lizard ...	240	1021·4	-14	NE	5	c	*	85	7	8	2	–	9	10	1500
	Scilly (St. Mary's)	163	1021·4	-6	NE	5	c	39	75	6	8	–	–	9+	9+	2500
	Guernsey ...	175	1020·6	+12	E	2	o	33	97	6	5	–	–	10	10	1500
6	Pembroke ...	142	1025·6	-2	ENE	4	pcup	33	85	7	5	–	–	4·6	4·6	2500
7	Holyhead ...	26	1027·3	-6	E	4	b	37	88	6	–	–	–	0	0	–
	Chester (Sealand)	16	1028·1	-10	–	0	2o	37	75	5	5	–	–	10	10	2500
8	Manchester ...	70	1028·1	-6	ENE	4	2o	38	75	6	5	–	–	4·6	4·6	2500
10	Spurn Head ...	29	1028·1	-2	ENE	4	cq	40	75	7	8	–	–	7·8	7·8	2500
	Catterick ...	175	1029·3	-14	–	0	c	37	85	7	5	–	–	9+	9+	1500
	Tynemouth ...	108	1030·8	-4	ESE	2	0	40	75	7	5	–	–	10	10	1500
11	St. Abbs Head	280	1030·3	-4	SSW	1	0	37	85	8	5	–	–	10	10	2500
	Leuchars ...	36	1029·8	-6	WSW	2	2o	36	85	6	5	–	–	10	10	2500
12	Renfrew (Abbots I.)	19	1030·4	-6	W	1	2o	35	85	6	5	–	–	10	10	1500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1028·0	-4	SE'S	2	bc	38	85	7	5	–	–	4·6	4·6	2500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1025·7	-2	S	5	c	44	75	6	5	–	–	9+	9+	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1026·4	-6	SSW	2	bc	34	92	7	5	–	5	2·3	2·3	2500
16	Lerwick ...	156	1021·0	-6	SW	8	c	46	85	6	5	2	–	7·8	10	800
17	Blacksod Point	18	1028·0	-2	E'S	2	c	30	75	7	–	2	–	10	10	–
18	Malin Head ...	84	1029·7	-6	S'E	2	2o	37	75	6	5	–	–	9	9	2500
	Aldergrove ...	268	1029·3	-6	–	0	2o	38	85	6	5	–	–	10	10	2500
19	Birr Castle ...	173	1027·8	-6	NE	1	c	35	92	7	5	1	–	7·8	10	2500
20	Valentia Obsy.	30	1026·0	-6	E	2	b	33	85	7	5	–	–	1	1	4000
	Roches Point	22	1025·0	-6	NE	3	c	39	85	8	5	–	–	9	9	2500

OBSERVATIONS at 7 hr. G.M.T. 18th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
1	London (Kew)	1023·2	-10	NE'E	3	2o	36	85	5	5	–	–	10	10	1500	1	*
	Croydon ...	1023·2	-8	E	1	2o	34	85	6	5	–	–	10	10	1500	1	*
	S. Farnborough	1022·9	-6	E'N	2	2o	34	85	5	5	–	–	10	10	1500	1	*
	Boscombe Down	1022·7	-6	ENE	2	rs	32	97	5	5	–	–	10	10	1500	3	*
	Calshot (Sthmtn.)	1022·0	-6	NE'E	5	2o	35	85	6	5	–	–	10	10	1500	1	2
	Lympne ...	1022·9	-6	ENE	2	o	34	75	7	5	–	–	10	10	1500	1	§3
	Manston ...	1023·1	-8	ESE	3	2o	36	86	6	5	–	–	10	10	1500	0	*
2	Shoeburyness ...	1023·3	-4	E	2	bc	38	75	5	5	–	–	4·6	4·6	1500	0	*
	Felixstowe ...	1023·9	-10	NE	3	2o	38	75	6	5	–	–	10	10	1500	1	3
	Gorleston ...	1024·7	-10	E'N	4	o	37	75	6	5	–	–	10	10	2500	0	3
	Mildenhall ...	1024·7	-6	ENE	2	2o	35	85	6	5	–	–	10	10	1500	1	*
	Cranwell ...	1025·5	-8	NE	2	2o	36	92	6	5	–	–	10	10	1500	0	*
3	Birmingham ...	1024·5	-10	E	4	o	35	75	6	5	–	–	10	10	1500	1	*
	Upper Heyford	1024·2	-6	ENE	2	2o	33	92	6	5	–	–	10	10	800	1	*
4	Ross-on-Wye	1023·8	-8	NE'E	3	2o	34	85	6	5	–	–	10	10	1500	1	*
5	Hartland Point	1020·5	-8	NE	5	c	36	85	8	8	2	–	4·6	10	2500	0	3
	Bristol ...	1023·2	-6	ENE	2	dodo	33	92	6	5	–	–	10	10	1500	1	*
	Portland Bill ...	1020·0	-10	ENE	5	o	36	92	7	5	–	–	10	10	2500	1	4
	Plymouth ...	1020·3	-8	NE	4	dodo	35	85	6	5	–	–	10	10	2500	1	2
	The Lizard ...	1018·7	-20	NE	5	dodo	37	97	4	5	–	–	10	10	1500	1	3
	Scilly (St. Mary's)	1018·5	-12	NE'E	5	1o	38	92	6	8	7	–	7·8	10	1500	1	3
	Guernsey ...	1018·4	-6	E	1	o	36	85	6	5	–	–	10	10	1500	0	3
6	Pembroke ...	1022·6	-8	E	4	c	36	92	7	5	–	–	10	10	2500	1	2
7	Holyhead ...	1025·7	-6	E'N	4	c	38	75	7	8	–	–	9	9	2500	1	2
	Chester (Sealand)	1026·3	-10	NE'N	1	2o	37	75	5	5	–	–	10	10	2500	1	*
8	Manchester ...	1026·7	-8	NE'E	3	c	37	75	7	5	–	–	7·8	7·8	2500	0	*
10	Spurn Head ...	1026·6	-4	E'N	4	c	30	75	7	8	–	–	7·8	7·8	1500	0	3
	Catterick ...	1027·9	-6	–	0	c	36	85	7	5	–	–	9	9	1500	1	*
	Tynemouth ...	1029·4	-4	ESE	3	c	41	85	7	5	–	–	7·8	7·8	1500	1	2
11	St. Abbs Head	1028·9	-6	SSW	1	0	35	92	8	5	–	–	10	10	2500	0	*
	Leuchars ...	1028·7	-6	W	2	2o	33	85	6	5	–	–	10	10	1500	1	*
12	Renfrew (Abbots I.)	1029·3	-4	–	0	2o	35	75	5	5	–	–	10	10	1500	1	*
	Eskdalemuir ...	1028·6	-4	–	0	0	32	92	7	5	–	–	10	10	1500	1	3
	Point of Ayre ...	1027·6	-10	ENE	3	c	39	85	7	5	–	–	9+	9+	2500	0	2
13A	Tiree	1027·1	0	SSE	2	c	41	75	7	5	–	–	Tr	9+	2500	0	2
13B	Stornoway ...	1024·5	-12	S	5	c	46	85	6	5	2	–	9	10	2500	0	3
15	Dalwhinnie ...	–	-4	–	0	bc	21	97	7	4	–	–	2·3	2·3	4000	5	*
	Aberdeen ...	1027·6	-4	–	0	b	23	92	5	5	–	–	Tr	Tr	4000	3	1
	Wick ...	1024·6	-10	SSW	3	c	36	85	7	5	7	1	4·6	9	2500	3	1
16	Lerwick ...	1020·4	-2	SW	8	c	47	85	6	5	2	–	7·8	10	800	1	*
17	Blacksod Point	1027·6	+6	E'S	1	c	38	75	7	–	2	–	0	10	–	3	2
18	Malin Head ...	1028·5	-6	S'W	1	c	35	75	7	8	–	–	9+	9+	1500	0	1
	Aldergrove ...	1028·2	-6	ENE	2	2o	37	85	6	5	–	–	10	10	1500	1	*
19	Birr Castle ...	1025·8	-6	NE	1	c	38	85	7	5	1	–	7·8	10	2500	1	*
20	Valentia Obsy.	1025·4	-6	E'N	1	b	32	85	7	5	–	–	1	1	2500	1	1
	Roches Point	1028·9	-8	NE	3	c	38	75	8	5	–	–	9+	9+	2500	1	3

PAST 24 HOURS.

District	Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Temperature Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 17th Hrs. (36)
1	London (Kew)	37	34	33	–	Tr	0·0
	Croydon ...	36	34	33	–	–	0·0
	S. Farnborough	35	33	33	–	Tr	0·0
	Boscombe Down	34	31	29	Tr	0·2	0·0
	Calshot (Sthmtn.)	38	34	33	–	Tr	0·0
	Lympne ...	35	31	30	Tr	–	0·0
	Manston ...	37	33	33	–	–	0·0
2	Shoeburyness ...	40	35	34	–	–	0·0
	Felixstowe ...	39	35	34	–	–	0·0
	Gorleston ...	37	35	35	–	–	*
	Mildenhall ...	37	28	20	–	–	2·0
	Cranwell ...	38	35	33	–	–	0·0
3	Birmingham ...	37	33	31	–	–	0·0
	Upper Heyford	34	30	25	–	–	*
4	Ross-on-Wye	35	33	30	–	–	1·1
5	Hartland Point	36	34	33	–	–	0·1
	Bristol ...	34	33	28	–	0·1	0·0
	Portland Bill ...	39	33	*	–	–	*
	Plymouth ...	36	34	34	–	Tr	0·0
	The Lizard ...	38	34	*	–	0·3	0·0
	Scilly (St. Mary's)	38	37	*	–	Tr	0·0
	Guernsey ...	42	33	33	–	–	0·0
6	Pembroke ...	38	31	*	–	–	2·1
7	Holyhead ...	41	35	29	–	–	2·0
	Chester (Sealand)	39	34	29	–	–	0·0
8	Manchester ...	39	34	26	–	–	0·0
10	Spurn Head ...	40	38	*	–	–	0·0
	Catterick ...	39	35	30	–	–	0·0
	Tynemouth ...	41	39	35	–	–	*
11	St. Abbs Head	38	34	*	Tr	–	*
	Leuchars ...	39	33	32	–	–	0·0
12	Renfrew (Abbots I.)	38	33	33	–	–	0·0
	Eskdalemuir ...	36	32	*	–	–	0·0
	Point of Ayre ...	41	37	*	–	–	0·0
13A	Tiree	43	39	38	–	–	0·0
13B	Stornoway ...	44	43	*	–	–	0·0
15	Dalwhinnie ...	34	18	10	–	–	4·6
	Aberdeen ...	40	23	14	–	–	3·4
	Wick ...	41	33	*	–	–	*
16	Lerwick ...	46	44	*	–	–	0·0
17	Blacksod Point	40	31	*	–	–	*
18	Malin Head ...	39	33	*	–	–	0·0
	Aldergrove ...	39	36	35	–	–	0·0
19	Birr Castle ...	40	35	32	–	–	0·0
20	Valentia Obsy.	41	31	20	–	Tr	1·0
	Roches Point	42	38	*	–	–	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon (24 hrs. ended 9h.)	Weather Night (24 hrs. ended 9h.)	Temperature Day Max. °F.	Temperature Night Min. °F.	Temperature Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday.)	Humidity 15h. G.M.T. % (Yesterday.)	Humidity 9h. G.M.T. % (To-day.)	Visibility 9h.
Kew ...	18	c2o	c2o	cmc2d	37	34	33	–	Tr	0·0	*	*	
Croydon ...	217	pcm2m	cmm2	c2c2d	36	34	33	–	–	0·0	*	*	
Greenwich (Royal Observatory) ...	149	cm	cm	cm	36	34	33	–	–	*	76	86	
City (Bunhill Row) ...	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	38	34	32	–	–	*	65	79	*
Regents Pk. (Botanic Gardens)‡ ...	168	*	*	*	36	33	28	–	–	*	70	80	*
Camden Square ...	110	sq	c	*	36	34	28	–	–	*	*	87	*
Kensington ...	80	cbc	cbcc	*	37	34	33	–	–	*	70	81	*
Hampstead Observatory ...	450	o	o	o	34	31	28	–	–	*	*	93	*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T.....

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 17th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 18th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris ...	1021·5	N	2	o	30	1019·9	NNE	3	2o	32	32	30	–	–
Brussels ...														
Berlin ...														
Zürich ...														
Rome ...	1018·9	E	3	o	52	1019·3	NE	2	c	46	*	*	5	–

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 „
2 Fog	550 „
3 Moderate fog	1,100 „
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ „
6 Moderate „	6½ „
7 Good „	12½ „
8 Very good „	31 „
9 Excellent „	beyond 31m.

COLUMN 30 — Code for State of Sea.

0 Calm.	5 Very rough.
1 Smooth.	6 High.
2 Slight.	7 Very high.
3 Moderate.	8 Preciptious.
4 Rough.	9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

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AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Tuesday, 19th December, 1939.

No. 28516

OBSERVATIONS at 13h. G.M.T. 18th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1021·3	-16	NE	3	m	37	85	4	5	-	-	10	10	1500
	Croydon ...	1021·3	-18	NE	2	m	36	85	4	5	-	-	10	10	1500
	S. Farnborough	1021·3	-18	NE'E	3	m	37	85	4	5	-	-	10	10	800
	Boscombe Down	1021·0	-20	NNE	3	z_o	34	92	5	5	-	-	10	10	800
	Calshot (Soton.)	1020·4	-18	E'N	4	z_o	37	85	6	5	-	-	10	10	1500
	Lympne ...	1020·6	-14	ENE	3	z_o	35	85	6	5	-	-	10	10	1500
	Manston ...	1021·6	-20	E'S	3	z_o	36	85	6	5	-	-	10	10	1500
2	Shoeburyness ...	1021·6	-16	E	4	c	38	92	6	5	-	-	10	10	1500
	Felixstowe ...	1022·2	-16	E'N	3	z_o	38	85	6	5	-	-	10	10	1500
	Gorleston ...	1023·5	-14	E'N	4	c	37	85	6	5	-	-	10	10	2500
	Mildenhall ...	1022·9	-20	ENE	4	z_o	37	92	6	5	-	-	10	10	1500
	Cranwell ...	1024·3	-16	E'S	2	z_o	38	97	6	5	-	-	9+	9+	1500
3	Birmingham	1023·7	-14	E	3	o	35	85	5	5	-	-	10	10	800
	Upper Heyford	1022·9	-14	NE'E	3	id_o	34	92	6	5	-	-	10	10	1500
4	Ross-on-Wye ...	1022·3	-14	NE	2	z_o	35	85	6	5	-	-	10	10	1500
5	Hartland Point	1020·0	-14	NE	4	c	35	85	7	5	2	-	7-8	10	1500
	Bristol ...	1021·8	-18	ENE	3	c/d	34	92	5	5	2	-	9+	10	1500
	Portland Bill ...	1019·1	-14	ENE	5	o	36	92	7	5	-	-	10	10	2500
	Plymouth ...	1019·1	-14	NE	3	z_o	37	85	6	5	-	-	10	10	1500
	The Lizard ...	1018·2	-4	NE	5	d_od_o	37	97	4	5	-	-	10	10	1500
	Scilly (St. Mary's)	1021·5	-26	NE	5	ir_o	40	85	6	2	2	-	7-8	10	1500
	Guernsey ...	1016·2	-18	ENE	2	c	39	85	6	8	-	-	10	10	1500
6	Pembroke ...	1022·0	-4	E'N	4	c	36	92	7	5	-	-	9+	9+	2500
7	Holyhead ...	1024·1	-14	E'N	6	c	40	75	6	8	-	-	7-8	7-8	2500
	Chester (Sealand)	1025·2	-14	E'N	1	z_o	39	75	5	5	-	-	10	10	2500
8	Manchester ...	1025·1	-14	E	3	z_o	39	75	5	7	-	-	7-8	7-8	4000
10	Spurn Head ...	1024·8	-12	E	3	c	40	65	7	5	-	-	7-8	7-8	2500
	Catterick ...	1026·4	-18	-	0	bc	41	75	7	7	-	-	4-6	4-6	2500
	Tynemouth ...	1027·3	-12	SE	2	c	42	75	8	8	-	-	7-8	7-8	2500
11	St. Abbs Head	1027·6	-10	SSW	1	c	36	85	8	5	6	-	7-8	9	2500
	Leuchars ...	1026·4	-18	SW	2	z_o	34	85	6	-	-	-	0	0	-
12	Renfrew (Abbots I.)	1028·0	-6	-	0	m	32	85	4	-	-	-	0	0	-
	Eskdalemuir ...	1026·6	-10	N	2	b	33	85	7	-	-	-	0	0	-
	Point of Ayre ...	1026·1	-14	SE'S	2	b	43	75	8	5	-	-	1	1	4000
13A	Tiree ...	1026·1	-8	S	2	c	42	85	8	5	-	-	9+	9+	4000
13B	Stornoway ...	1024·0	-8	S	4	c	47	75	7	5	7	-	7-8	9+	4000
15	Dalwhinnie ...	1026·4	-10	S	2	bc	33	85	8	4	6	-	4-6	4-6	4000
	Aberdeen ...	1026·6	-12	W	1	b	33	75	6	-	-	1	0	Tr	-
	Wick ...	1023·7	-6	SSW	3	c	41	85	7	5	7	1	7-8	9	2500
16	Lerwick...	1019·4	-10	SW	8	ir_o	47	97	6	8	2	-	7-8	10	450
17	Blacksod Point..	1026·3	-10	E	3	c	38	75	7	-	7	-	0	10	-
18	Malin Head ...	1027·0	-8	NW	1	c	38	75	7	5	-	-	9	9	1500
	Aldergrove ...	1026·8	-14	ENE	2	z_o	37	85	6	5	-	-	10	10	2500
19	Birr Castle ...	1024·4	-12	ENE	1	c	40	75	7	5	1	-	7-8	10	1500
20	Valentia Obsy. †	1023·9	-16	NE'E	2	b	37	75	7	7	-	-	1	1	4000
	Roches Point ...	1022·3	-18	NNE	4	id_o	39	85	7	5	-	-	10	10	1500

OBSERVATIONS at 18h. G.M.T. 18th December — PAST 24 HOURS.

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.—13h. 18th (37)	Weather 13h.—18h. 18th (38)	Weather 18h. 18th to 1h. 19th (39)	Weather 1h.—7h. 19th (40)
1	London (Kew)...	1020·2	-6	ENE	3	m	37	85	4	5	-	-	10	10	1500	1	*	$c m_o c f c m$	$cmid_ocm$	cm	cm_o
	Croydon ...	1020·1	-6	ENE	3	z_o	36	85	5	5	-	-	10	10	1500	1	*	cm_omcm	cmmm	cm_o	cm_oom_o
	S. Farnborough	1019·8	-4	NE'E	3	m	37	85	4	5	-	-	10	10	1500	1	*	cm_omc	$cmid_oc$	om_o	m_oir_oo
	Boscombe Down	1019·4	-6	NE'E	3	z_o	35	92	5	5	-	-	10	10	1500	1	*	$or_os_oid_om_o$	om_o	om_o	om_o
	Calshot (Soton.)	1018·7	-6	NE'E	3	z_o	38	85	6	5	-	-	10	10	1500	1	2	om_ocm_o	cm_o	id_ocm_o	$ccir_om_o$
	Lympne ...	1020·0	-4	ENE	3	z_o	35	92	6	5	-	-	10	10	450	1	§3	om_o	om_o	om_o	om_o
	Manston ...	1020·0	-6	E'N	3	z_o	36	92	6	5	-	-	10	10	800	0	*	cm_o	cm_o	cm_o	cm_o
2	Shoeburyness ...	1020·5	-2	E'N	4	c	38	85	6	5	-	-	10	10	1500	1	*	c	cm_o		c
	Felixstowe ...	1020·6	-8	E	3	z_o	38	85	6	5	-	-	10	10	1500	1	2	om_o	om_o	om_o	om_o
	Gorleston ...	1022·0	0	E	3	c	38	85	6	5	-	-	10	10	2500	1	2	c	c	c	c
	Mildenhall ...	1021·9	-2	ENE	2	z_o	36	85	6	5	-	-	10	10	1500	1	*	om_o	om_o	om_o	om_o
	Cranwell ...	1022·6	-6	NE	2	z_o	36	85	6	5	-	-	10	10	2500	0	*	cm_o	cm_ocem_o	cm_o	cm_o
3	Birmingham	1022·3	-6	ENE	4	o	36	75	5	5	-	-	10	10	800	1	*	o	o		o
	Upper Heyford	1021·8	-2	NE'E	3	d_od_o	34	92	5	5	-	-	10	10	450	1	*	cid_om_o	$cid_ocd_od_o$	$id_om_ocm_o$	cm_o
4	Ross-on-Wye ...	1021·0	-6	NE	3	id_o	36	85	6	5	-	-	10	10	1500	1	*	om_o	om_o	d_oom_o	om_o
5	Hartland Point	1019·0	+2	E	4	c	35	85	7	5	2	-	7-8	10	1500	0	3	c	c	c	c
	Bristol ...	1020·6	0	ENE	2	id_o	35	92	5	5	2	-	7-8	10	800	1	*	$cd_od_om_o$	cm_oid_o	$cd_or_ois_o$	cm_o
	Portland Bill ...	1017·6	-10	ENE	5	o	38	92	7	5	-	-	10	10	2500	1	4	o	o	orr	orr
	Plymouth ...	1018·1	-2	ENE	3	z_o	37	85	6	5	-	-	10	10	1500	1	1	od_om_o	om_o	oir_om_o	oir_om_o
	The Lizard ...	1016·8	+4	NE	5	m	39	85	4	5	-	-	10	10	1500	1	3	ddm	cddmc	ddmc	cidc
	Scilly (St. Mary's)	1016·4	+2	NE'E	5	c	40	85	6	8	2	-	7-8	10	1500	1	3	cir_o	cir_oc	c	cir_o
	Guernsey ...	1014·8	-2	ENE	3	d_od_o	43	92	6	8	-	-	10	10	1500	0	3	oc	cd_od_o	cd_or_o	$ocpr_o$
6	Pembroke ...	1020·6	-4	E	4	c	36	85	7	5	-	-	10	10	2500	1	2	c	c	m_oo	$cbcm_o$
7	Holyhead ...	1022·9	-2	ENE	4	c	39	85	6	5	-	-	9+	9+	4000	1	2	cbc	bcz_om_oc	m_oz_oc	cm_obc
	Chester (Sealand)	1023·5	-4	-	0	m	34	85	4	5	-	-	10	10	2500	1	*	cz_o	cz_ocm	cmz_o	cz_obcm_o
8	Manchester ...	1023·4	-6	NE	3	m	38	75	4	5	-	-	9	9	1500	0	*	$cbczz_o$	$bczbz_ocz$	czbczbcm	$bcmmz_o$
10	Spurn Head ...	1023·4	-4	E'N	4	c	39	75	7	5	-	-	9	9	2500	0	2	c	c	c	o
	Catterick ...	1025·0	-2	-	0	z_o	37	85	6	5	-	-	9+	9+	1500	1	*	bc	$bccm_o$	cm_obcm_o	
	Tynemouth ...	1025·7	-4	E	3	c	41	75	8	2	-	-	7-8	7-8	2500	1	2	c	cbcc	c	cbc
11	St. Abbs Head	1025·6	-6	-	0	b	38	92	8	-	-	-	0	0	-	0	1	c	bcb	m_obc	fbcm
	Leuchars ...	1025·7	0	WSW	1	z_o	30	92	5	-	-	-	0	0	-	3	*	bm_oxbm_o	bm_ox	bm_obffx	$bffx,bm_ox$
12	Renfrew (Abbots I.)	1026·6	-4	-	0	ff	30	97	3	-	-	-	10	10	<150	1	*	cbcbmmx	bm_offx	ffFx	ffx
	Eskdalemuir ...	1025·7	-4	N'W	3	b	26	97	5	-	-	-	0	0	-	3	*	cbcbx	bx	bx	bx
	Point of Ayre ...	1024·4	-6	NE'E	3	b	38	85	8	5	-	-	1	1	2500	0	2	cbc	cbcb	bbc	bc
13A	Tiree ...	1025·3	0	SW	2	c	41	85	8	5	-	-	7-8	7-8	4000	0	2	c	c	c	com_o
13B	Stornoway ...	1023·6	0	SSW	3	c	46	75	7	5	7	-	7-8	9+	4000	0	2	c	c	c	cdd
15	Dalwhinnie ...	*	0	S	2	c	22	97	7	4	6	-	4-6	9	2500	0	*	bc	bcc	*	cir_o
	Aberdeen ...	1025·3	-4	WSW	1	b	28	85	6	-	-	1	0	Tr	-	3	1	bxffb	bz_ox		cz_ocd_o
	Wick ...	1023·1	-2	W	3	c	40	85	7	5	7	-	7-8	9+	1500	1	2	c	cbcc	$cddm_o$	cdm_o
16	Lerwick...	1019·2	-2	WSW	7	c/r	47	97	6	6	2	-	4-6	10	800	1	*	cir_o (gale)	cirrr	cir	cbc
17	Blacksod Point..	1025·7	0	E	3	c	36	85	7	-	7	-	0	10	-	0	3	c	c	bcb	c
18	Malin Head ...	1025·9	0	E	1	z_o	39	85	6	5	-	-	9+	9+	2500	0	2	c	cz_ozc	c	c
	Aldergrove ...	1025·2	-6	N'E	2	z_o	36	85	6	5	-	-	10	10	1500	1	*	cm_o	cm_o	cm_obccm_o	cm_obcbx
19	Birr Castle ...	1023·2	-2	ENE	1	c	39	85	7	5	1	-	7-8	10	2500	1	*	c	c	c	
20	Valentia Obsy. †	1022·6	0	ENE	3	c	39	75	7	5	-	-	10	10	4000	0	2	bxm_ob	bbcc	o	ocbcb
	Roches Point ...	1021·2	0	NE	3	c/r	39	92	7	6	2	-	7-8	9+	1500	1	3	id_o	cir_oc	ir_oc	c

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_o, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_o/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
Solar halo. lunar halo. Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

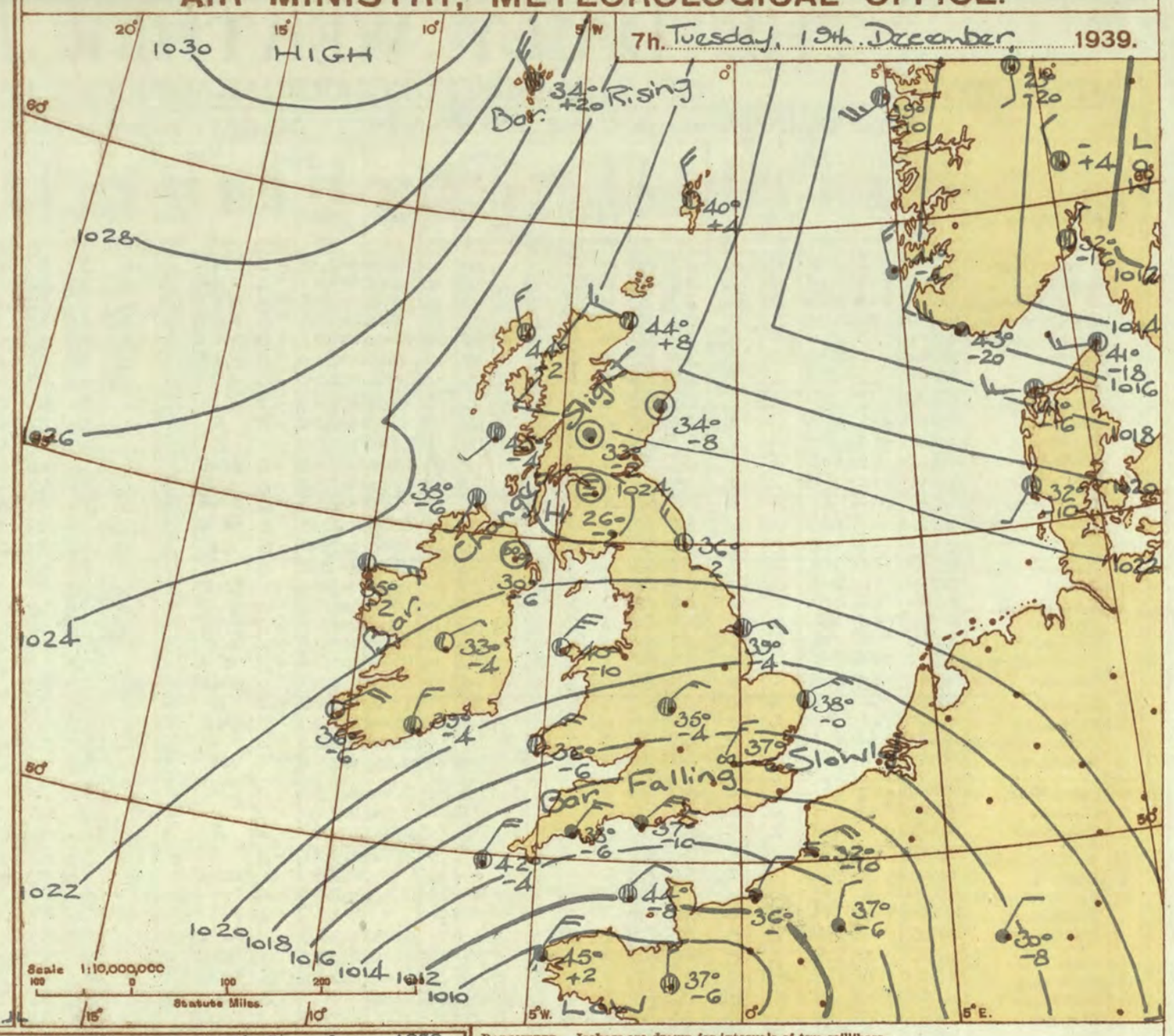
Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. „ wet.
2 .. „ flooded.
3 .. „ frozen hard and dry.
4 .. „ partly covered with snow or hail.
5 .. „ covered with ice or glazed frost.
6 .. „ covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. „ covered with snow, less than 6 ins., but ground frozen.
9 .. „ covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.



Districts.	Forecasts for the 24 hours commencing 12 noon, G.M.T. 19th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Light or moderate east to northeast wind, cloudy or dull; local drizzle, becoming more general in east tomorrow; rather cold.
5 S.W. England	Moderate or fresh northeast wind; cloudy; occasional rain or drizzle; rather cold.
6 South Wales ... 7 North Wales ...	Moderate or light northeast wind; mainly fair; with variable cloud; rather cold.
8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Wind variable to north or northeast, light or moderate; fair at first with local fog, becoming cloudy with slight local rain; improvement spreading south again later; local frost.
13 A. W. Scotld. B.N.W.Scotland. 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Moderate or light northerly wind; variable cloud, local showers, snow locally later; becoming colder.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	As 6 - 7.

Barometer. Isobars are drawn for intervals of two millibars.
Wind, Weather Symbols. For explanation see opposite page.
Sea Disturbance. ~~ Rough. ≈≈ High.
Barometric Change from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

Pressure is high over Iceland and the Black Sea and low over Northern Europe and the Bay of Biscay . A northerly current which has reached North Scotland will advance slowly. Weather will be mainly dull with local drizzle but there will be bright periods locally in the North.

FURTHER OUTLOOK.

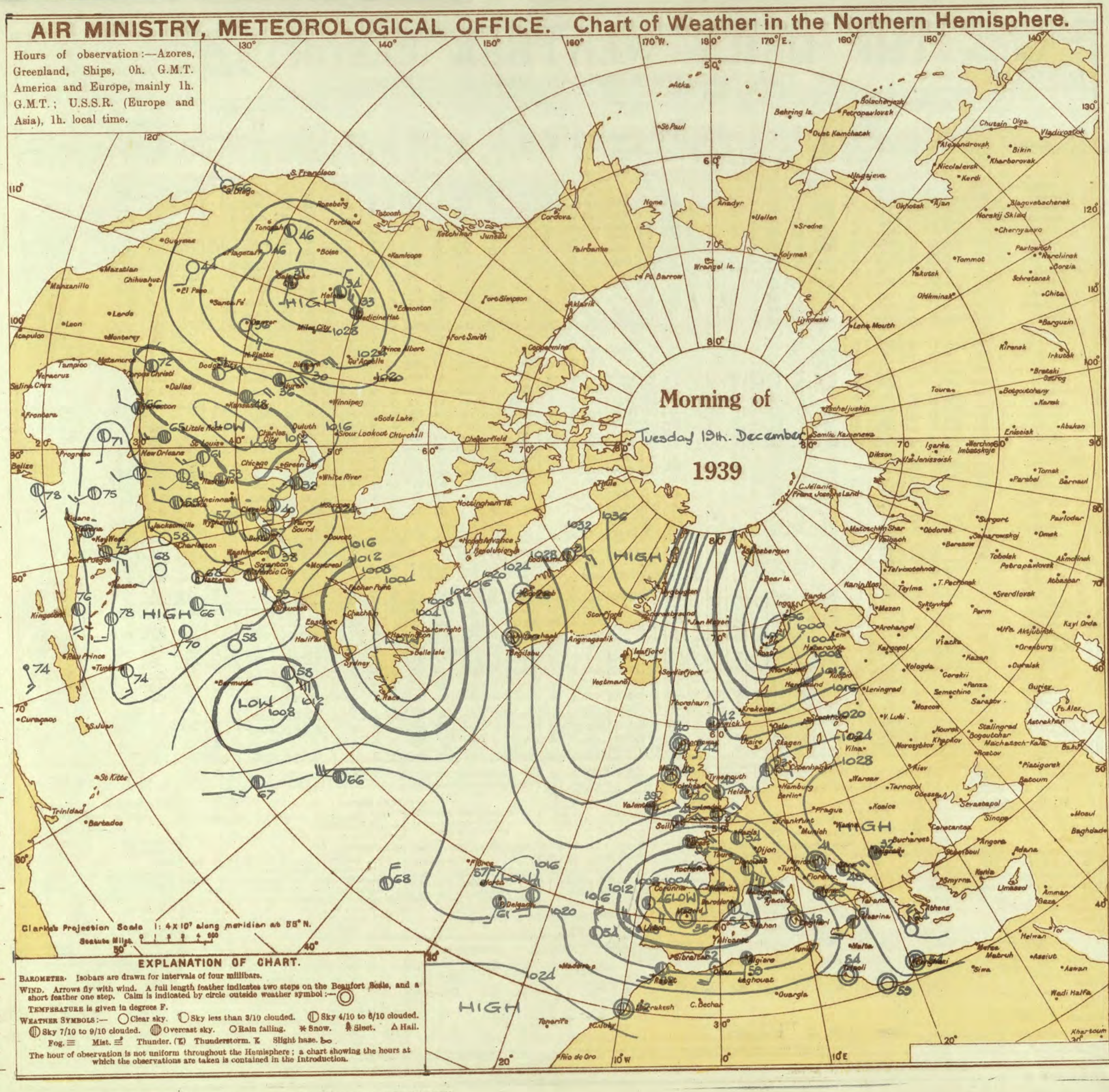
North or northeast winds; bright intervals in the North and later in the South also. Snow showers locally in the North and sleet showers in the East.

Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Tuesday, 19th December, 1939.

No. 28516

OBSERVATIONS at 1 hr. G.M.T. 19th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1019·3	-6	NE'E	3	z0	37	92	5	5	–	-	10	10	450
	S. Farnborough	226	1018·6	-14	NE	3	z0	37	85	5	5	-	–	10	10	800
	Boscombe Down	417	1018·2	-8	NE	3	z0	35	92	5	5	–	-	10	10	800
	Calshot (Sthmtn.)	8	1017·4	-14	NE	3	z0	38	92	5	5	–	-	10	10	1500
	Lympne ...	346	1018·5	-14	NE'E	4	z0	36	92	6	5	–	-	10	10	800
	Manston ...	154	1018·7	-10	E'N	3	z0	38	92	5	5	-	-	10	10	800
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1019·5	-10	ENE	3	z0	38	85	6	5	-	-	10	10	1500
	Gorleston ...	5	1020·4	-4	NE	3	o	37	85	6	5	-	-	10	10	2500
	Mildenhall ...	19	1020·1	-16	NE'E	3	z0	37	92	6	5	-	-	10	10	1500
	Cranwell ...	240	1021·2	-10	ENE	2	z0	37	92	6	5	-	-	10	10	1500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1020·5	-8	ENE	3	z0	33	92	6	5	-	-	10	10	800
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1016·5	-18	ENE	4	c	38	85	8	8	–	-	9	9	2500
	Bristol ...	209	1019·2	-14	ENE	3	z0	35	85	5	5	-	–	10	10	1500
	Portland Bill ...	32	1015·8	-12	ENE	5	rr	38	85	7	5	–	-	10	10	1500
	Plymouth ...	82	1016·6	-12	ENE	2	ir0	38	85	6	5	-	–	10	10	1500
	The Lizard ...	240	1016·0	-6	NE	5	o	37	97	6	5	–	-	10	10	1500
	Scilly (St. Mary's)	163	1017·0	0	NE'N	5	c	41	75	7	8	1	–	7-8	10	1500
	Guernsey ...	175	1013·3	-16	NE'E	3	o	43	92	6	5	-	–	10	10	1500
6	Pembroke ...	142	1019·0	-10	NE	3	o	36	85	6	5	–	-	10	10	2500
7	Holyhead ...	26	1021·6	-12	ENE	4	c	40	75	6	5	–	-	7-8	7-8	1500
	Chester (Sealand)	16	1022·4	-10	–	0	z0	37	75	5	5	–	–	10	10	4000
8	Manchester ...	70	1022·3	-6	N'E	1	m	35	85	4	5	–	-	4-6	4-6	1600
10	Spurn Head ...	29	1021·7	-8	E'N	3	c	40	75	7	5	-	-	9+	9+	2500
	Catterick ...	175	1023·3	-14	–	0	z0	31	97	6	5	–	-	2-3	2-3	2500
	Tynemouth ...	108	1025·0	-10	NE	2	c	41	75	7	2	–	-	7-8	7-8	2500
11	St. Abbs Head	280	1024·5	-10	WNW	1	bc	31	97	6	5	–	-	2-3	2-3	1500
	Leuchars ...	36	1024·5	-10	WSW	2	bF	24	97	1	-	-	-	0	0	–
12	Renfrew (Abbots I.)	19	1025·4	-6	SE'S	1	F+	28	97	1	–	–	–	10	10	<150
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	1023·6	-6	SE	1	bc	37	85	7	4	–	–	2-3	2-3	2500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1023·1	0	–	0	c	45	92	7	5	1	-	4-6	10	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1022·2	-4	SSW	1	dd	42	97	6	5	2	-	7-8	10	1500
16	Lerwick ...	156	1020·6	+4	N	3	c	42	92	7	5	7	–	7-8	9+	1600
17	Blacksod Point	18	1025·1	-6	E'N	2	b	36	85	7	–	–	–	0	0	–
18	Malin Head ...	84	1025·0	-4	–	0	c	40	75	7	8	2	-	4-6	9	4000
	Aldergrove ...	268	1024·5	-6	–	0	z0	31	92	5	5	–	-	9+	9+	1500
19	Birr Castle ...	173	1023·3	-4	ENE	1	c	36	85	7	5	7		7-8	9	2500
20	Valentia Obsy.	30	1022·2	-8	ENE	2	o	39	85	7	5	–	–	10	10	2500
	Roches Point	22	1020·9	-6	NNE	4	c	39	85	7	6	?	·	7-8	9+	1500

OBSERVATIONS at 7 hr. G.M.T. 19th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1017·5	-4	NE	4	z0	37	85	5	5	–	-	10	10	1500	1	*
Croydon	1017·9	-6	NE	3	z0	37	92	5	5	–	–	10	10	450	1	*
S. Farnborough	1017·2	-4	NE	3	z0	36	92	6	5	–	-	10	10	450	1	*
Boscombe Down	1016·9	-2	NE	4	z0	34	97	5	5	–	-	10	10	800	0	*
Calshot (Sthmtn.)	1015·6	-6	NE'N	4	ir0	39	92	5	5	–	-	10	10	800	1	2
Lympne	1016·5	-8	ENE	5	z0	37	92	5	5	–	-	10	10	450	1	§3
Manston	1017·3	-2	E'N	4	z0	38	92	5	5	–	–	10	10	800	0	*
Shoeburyness	1017·8	-2	ENE	4	o	39	92	5	5	–	-	10	10	1500	1	*
Felixstowe	1017·8	+2	E'N	3	z0	39	85	6	5	–	-	10	10	800	1	2
Gorleston	1019·2	-0	ENE	3	o	38	85	6	5	-	-	10	10	2500	0	2
Mildenhall	1019·5	-2	ENE	3	z0	36	97	5	5	-	-	10	10	800	1	*
Cranwell	1020·0	-6	NE'N	2	z0	37	92	6	5	–	–	10	10	1500	0	*
Birmingham	1019·6	-4	ENE	3	o	35	85	5	5	–	-	10	10	800	1	*
Upper Heyford	1019·0	-2	ENE	4	z0	34	92	6	5	–	-	10	10	800	1	*
Ross-on-Wye	1018·9	-4	NE	4	z0	37	85	6	5	–	-	10	10	800	1	*
Hartland Point	1015·5	-6	NE	4	c	37	85	7	5	2	–	7-8	9+	1500	0	3
Bristol	1018·2	-2	ENE	3	z0	34	92	6	5	–	-	10	10	800	1	*
Portland Bill	1014·2	-10	ENE	5	rr	37	92	7	5	–	–	10	10	1500	1	4
Plymouth	1014·9	-6	NE'E	3	ir0	38	75	6	5	–	-	10	10	1500	1	2
The Lizard	1014·9	-4	NE	4	o	37	97	6	5	-	-	10	10	1500	1	2
Scilly (St. Mary's)	1014·7	-4	NE	4	c/pr	42	85	6	8	2	4	7-8	10	1500	1	3
Guernsey	1011·4	-8	ENE	2	c/pr	44	92	6	8	–	-	10	10	1500	1	3
Pembroke	1018·3	-6	ENE	5	bc	36	85	6	5	–	+	4-6	4-6	2500	1	2
Holyhead	1020·4	-10	NE'E	6	bc	40	75	7	5	–	-	4-6	4-6	2500	1	2
Chester (Sealand)	1021·2	-4	NNE	1	z0	35	85	5	5	–	-	4-6	4-6	4000	1	*
Manchester	1021·4	-4	N'E	1	z0	36	75	5	5	–	–	7-8	7-8	2500	0	
Spurn Head	1020·6	-4	E'N	3	o	39	75	7	5	-	-	10	10	1500	0	2
Catterick																*
Tynemouth	1023·4	-2	[illegible]	0	bc	36	85	6	–	–	·	2-3	2-3	2500	1	2
St. Abbs Head	1023·2	-6	NW	2	bc/f	29	85	4	5	–	-	4-6	4-6	1500	5	1
Leuchars	1022·7	-4	WSW	2	z0	25	97	5	–	–	–	0	0	–	3	*
Renfrew (Abbots I.)	1024·1	-2	–	0	F-	26	97	1	–	-	-	10	10	<150	1	*
Eskdalemuir	1023·9	-2	–	0	bc	17	92	6	–	3	-	0	2-3	–	3	*
Point of Ayre	1022·1	-4	ENE	2	bc	38	92	7	5	–	-	2-3	2-3	1500	0	2
Tiree	1022·1	-4	SW'W	1	o	45	97	5	5	–	-	10	10	800	0	1
Stornoway	1023·4	+2	NNW	3	c	44	92	6	5	2	-	4-6	10	2500	1	1
Dalwhinnie	1024·0	-2	–	0	ir0	33	97	5	5	-	-	10	10	1500	1	*
Aberdeen	1021·8	-8	–	0	id0	34	97	5	5	2	-	4-6	10	1500	3	1
Wick	1021·9	+8	WNW	3	c	44	92	7	5	7	–	7-8	9+	1500	1	2
Lerwick	1021·3	+4	N'W	4	bc	40	92	8	5	7	–	4-6	4-6	1500	1	*
Blacksod Point	1023·8	-2	E	3	c	35	85	7	–	1	–	0	10	–	0	3
Malin Head	1023·4	-6	SW	1	c	38	85	6	8	2	-	7-8	9+	4000	0	2
Aldergrove	1022·8	-6	–	0	z0	30	97	6	5	–	-	2-3	2-3	1500	1	*
Birr Castle	1022·3	-4	ENE	1	bc	33	85	8	5	4	–	2-3	2-3	2500	1	*
Valentia Obsy.	1021·1	-6	ENE	4	b	36	85	7	5	–	-	1	1	2500	0	2
Roches Point	1020·0	-4	NNE	3	c	39	85	7	5	–	-	9+	9+	1500	1	3

PAST 24 HOURS.

Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 18th Hrs. (36)
London (Kew)	38	37	36	Tr	–	0·0
Croydon	37	36	36	–	–	0·0
S. Farnborough	37	34	35	Tr	Tr	0·0
Boscombe Down	35	34	33	0·1	–	0·0
Calshot (Sthmtn.)	39	37	37	-	Tr	0·0
Lympne	35	35	34	-	–	0·0
Manston	37	36	35	-	-	0·0
Shoeburyness	39	37	36	–	-	0·0
Felixstowe	38	38	36	-	-	0·0
Gorleston	38	37	35	-	–	*
Mildenhall	38	35	35	-	–	0·0
Cranwell	38	36	33	-	–	0·0
Birmingham	36	35	34	*	–	0·0
Upper Heyford	35	33	32	0·1	Tr	*
Ross-on-Wye	36	34	33	Tr	Tr	0·0
Hartland Point	36	35	34	–	–	0·0
Bristol	35	33	33	Tr	Tr	0·0
Portland Bill	38	35	*	–	3	*
Plymouth			*	–	Tr	0·6
The Lizard	39	36	*	1	0·5	0·0
Scilly (St. Mary's)	40	40		1	0·5	0·0
Guernsey	43	42	40	Tr	1	0·0
Pembroke	37	35	*	–	–	0·0
Holyhead	40	37	34	–	–	1·7
Chester (Sealand)	39	34	30	–	–	0·0
Manchester	40	34	23	–	-	0·0
Spurn Head	41	39	*	–	–	0·5
Catterick	42			–		
Tynemouth	42	35	30	–	–	*
St. Abbs Head	38	28	*	–	–	*
Leuchars	34	23	19	-	–	4·4
Renfrew (Abbots I.)	36	25	*	–	-	0·0
Eskdalemuir	34	17	16	–	-	5·9
Point of Ayre	45	36	*	–	–	4·5
Tiree	42	40	39	-	–	0·0
Stornoway	47	43	*	–	1	0·0
Dalwhinnie	34	20	13	-	0·1	3·9
Aberdeen	34	23	14	-	Tr	3·8
Wick	42	39	*	–	1	*
Lerwick	48	40	*	1	3	0·0
Blacksod Point	39	33	*	–	–	*
Malin Head	41	36	*	-	–	0·0
Aldergrove	37	28	20	-	–	0·0
Birr Castle	40	32	30	-	–	0·0
Valentia Obsy.	39	35	29	-	–	4·9
Roches Point	40	38	*	0·1	0·4	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Temperature Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
Kew ...	18	cm0fcm	cmid0cm	cmcm0	38	37	36	Tr	–	0·0	*	*	
Croydon ...	217	cm0omcu	cmm0m	cm0m0	37	36	36	–	–	0·0	*	*	
Greenwich (Royal Observatory)...	149	cm	om	or0s0m	37	36	36	–	Tr	0·0	84	90	4
City (Bunhill Row) ...	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*	39	37	36	–	–	*	83	88	*
Regents Pk. (Botanic Gardens)‡...	168	*	*	*	37	35	32	–	–	0·0	81	92	*
Camden Square ...	110	o	o	*	37	35	34	–	–	*	*	94	*
Kensington ...	80	co	ozcm	*	38	35	35	–	–	*	86	90	*
Hampstead Observatory ...	450	o	o	o	36	33	31	–	–	*	*	95	*

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 19th

South Kensington: Max.	Time.	Min.	Time.

Kew Observatory: Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 18th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 19th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours: Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris ...	1016·7	N	2	z0	34	1013·3	NNE	2	r0r0	37	36	34	Tr	0·6
Brussels ...														
Berlin ...														
Zürich ...														
Rome ...	1019·0	ENE	2	bc	50						*	*	–	

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 —Code for surface visibility.

Code		Objects not visible at
0	Dense fog	55 yards.
1	Thick fog	220 ,,
2	Fog	550 ,,
3	Moderate fog	1,100 ,,
4	Mist or haze	1½ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6¼ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30 —Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

TERMS OF SUBSCRIPTION. { Single Copies, 1d. each: by post 1½d. 2/6 per month; 6/6 per quarter; 25/- per year.

METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Wednesday 20th December 1939.

No. 28,517.

OBSERVATIONS at 13h. G.M.T. 19th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1017·5	-4	NE	4	m	37	85	4	5	-	-	10	10	1500
	Croydon	1017·8	0	NE	3	m	37	97	4	5	-	-	10	10	800
	S. Farnborough	1017·2	-6	NE'N	3	z$_0$	37	92	5	5	-	-	10	10	800
	Boscombe Down	1016·8	-8	NE'N	3	z$_0$	35	92	5	5	-	-	10	10	800
	Calshot (Soton.)	1015·9	-6	NNE	3	m	40	85	4	5	-	-	10	10	800
	Lympne	1017·0	-6	ENE	5	z$_0$	39	92	6	5	2	-	9	10	800
	Manston	1017·7	-2	E'N	4	z$_0$	40	92	5	5	-	-	10	10	800
2	Shoeburyness	1018·3	+2	NE	4	o	40	92	5	5	-	-	10	10	800
	Felixstowe	1018·4	-2	ENE	3	z$_0$	39	97	6	5	-	-	10	10	800
	Gorleston	1019·5	-4	NE	4	c	39	85	6	5	-	-	9+	9+	2500
	Mildenhall	1019·4	-2	E'N	2	z$_0$	37	92	6	5	-	-	10	10	800
	Cranwell	1020·6	-6	ENE	1	z$_0$	38	92	6	5	-	-	7-8	10	800
3	Birmingham	1020·2	-2	ENE	3	m	36	85	4	5	-	-	10	10	800
	Upper Heyford	1019·2	0	NE	3	z$_0$	35	92	6	5	-	-	10	10	800
4	Ross-on-Wye	1019·0	-8	NE'E	3	z$_0$	37	85	6	5	-	-	10	10	800
5	Hartland Point	1015·7	-8	NE	4	rs	38	92	7	6	2	-	4-6	10	1500
	Bristol	1017·9	-10	NE'E	4	z$_0$	36	85	5	5	2	-	7-8	10	1500
	Portland Bill	1014·1	-6	ENE	5	o	37	92	7	5	-	-	10	10	1500
	Plymouth	1015·3	-6	NE'N	2	r$_0$r$_0$	39	85	6	6	2	-	9	10	1500
	The Lizard	1014·5	-8	NE	3	c	40	97	8	8	2	-	9	10	1500
	Scilly (St. Mary's)	1015·1	-2	NE'E	4	c	41	85	7	8	2	-	7-8	10	1500
	Guernsey	1011·7	-2	NE'E	2	o	44	92	6	5	-	-	10	10	1500
6	Pembroke	1018·0	-4	ENE	4	c	38	85	7	5	7	3	4-6	7-8	1500
7	Holyhead	1020·3	-6	NE'E	5	bc	40	75	6	5	-	-	2-3	2-3	2500
	Chester (Sealand)	1021·2	-6	-	0	z$_0$	41	65	5	5	3	-	4-6	7-8	4000
8	Manchester	1021·2	-6	NE'E	3	m	39	75	4	5	3	-	2-3	4-6	2500
10	Spurn Head	1020·8	-4	ENE	2	c	41	75	8	5	4	-	9	9+	2500
	Catterick	1022·0	-6	S	1	cf	34	92	3	5	-	-	9	9	2500
	Tynemouth	1023·2	-2	NW	2	c	37	85	5	8	-	-	7-8	7-8	1500
11	St. Abbs Head	1022·3	-2	NW'W	3	o	37	85	7	5	-	-	10	10	1500
	Leuchars	1022·7	-2	WNW	1	z$_0$	34	92	6	5	-	-	10	10	4000
12	Renfrew (Abbots I.)	1024·0	-2	-	0	f	27	97	2	-	-	-	10	10	<150
	Eskdalemuir	1022·7	-4	-	0	b	32	85	7	5	4	-	Tr	Tr	2500
	Point of Ayre	1022·1	-2	ENE	1	b	40	85	8	5	-	-	1	1	4000
13A	Tiree	1021·9	-2	SW'S	2	dd	47	97	5	5	-	-	10	10	450
13B	Stornoway	1025·0	+6	N	4	c/pr	43	85	7	8	7	6	7-8	9+	2500
15	Dalwhinnie	1022·4	0	-	0	c	36	97	5	5	-	-	10	10	800
	Aberdeen	1022·6	+2	NW'N	2	c/r	40	92	7	5	7	-	4-6	9+	2500
	Wick	1023·7	+6	NNE	4	c	43	85	8	5	7	8	7-8	9+	1500
16	Lerwick	1023·1	+6	N'W	4	c	38	65	8	5	7	-	7-8	9+	1500
17	Blacksod Point	1023·9	-6	E	3	c	38	85	7	-	7	-	0	10	-
18	Malin Head	1023·0	-6	NNW	2	c	45	92	7	5	-	-	9	9	2500
	Aldergrove	1022·7	-6	-	0	z$_0$	37	92	6	5	-	-	7-8	7-8	2500
19	Birr Castle	1022·2	-4	ENE	1	bc	37	85	8	5	-	4	4-6	4-6	2500
20	Valentia Obsy. †	1021·6	-4	NE'E	4	c	37	75	7	5	-	-	9	9	2500
	Roches Point	1020·2	-2	N'E	3	c	40	85	7	5	-	-	9+	9+	2500

OBSERVATIONS at 18h. G.M.T. 19th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1019·3	+14	NE	3	m	38	85	4	5	-	-	10	10	1500	1	*
Croydon	1018·8	+10	NE	3	m/d	37	97	4	5	-	-	10	10	450	1	*
S. Farnborough	1018·7	+14	NE	4	id$_0$	37	92	5	5	-	-	10	10	800	1	*
Boscombe Down	1018·0	+10	NE'N	4	o/d	36	92	5	5	-	-	10	10	450	1	*
Calshot (Soton.)																
Lympne	1017·9	+8	NE	5	ir$_0$	39	92	5	-	2	-	10	10	450	1	§4
Manston	1018·7	+10	E'N	3	r$_0$r$_0$	40	92	5	5	-	-	10	10	800	1	*
Shoeburyness	1019·1	+10	NE	4	o	40	92	5	5	-	-	10	10	800	1	*
Felixstowe	1019·4	+6	NE'E	4	z$_0$	39	85	6	5	-	-	9+	9+	1500	1	3
Gorleston	1020·4	+4	NE	3	b	39	75	7	-	-	-	0	0	-	0	2
Mildenhall	1020·7	+12	NNE	2	z$_0$	35	85	6	5	-	-	Tr	2-3	1500	1	*
Cranwell	1021·7	+10	ENE	1	z$_0$	37	85	6	5	-	-	9+	9+	2500	0	*
Birmingham	1021·1	+10	ENE	3	m	37	85	4	5	-	-	10	10	800	1	*
Upper Heyford	1020·3	+10	NE'E	4	z$_0$	35	85	5	5	-	-	10	10	800	1	*
Ross-on-Wye	1019·9	+8	NE	4	z$_0$	38	85	6	5	-	-	10	10	800	1	*
Hartland Point	1016·5	+8	NE	4	c	39	85	7	5	2	-	7-8	9+	1500	1	3
Bristol	1019·1	+8	NE	3	z$_0$	37	85	5	5	-	-	10	10	1500	1	*
Portland Bill	1015·8	+6	NE	5	o	39	92	7	5	-	-	10	10	1500	1	4
Plymouth	1015·7	+6	NE	3	ir$_0$	40	85	6	-	2	-	10	10	1500	1	2
The Lizard	1015·7	+10	ENE	3	o	38	97	6	5	-	-	10	10	1500	1	2
Scilly (St. Mary's)	1015·6	+6	NE'E	3	c	41	85	6	8	2	-	4-6	10	1500	1	3
Guernsey	1013·2	+16	ENE	2	c	45	92	6	8	-	-	10	10	1500	1	3
Pembroke	1018·2	0	E'N	4	c	40	85	6	5	-	-	9+	9+	1500	1	2
Holyhead																
Chester (Sealand)	1022·4	+14	-	0	bf	29	92	2	-	-	-	0	0	-	1	*
Manchester	1022·5	+12	NE	2	bf	33	85	2	5	-	-	Tr	Tr	1500	0	*
Spurn Head	1022·1	+4	NE	3	c	44	75	7	5	4	-	9+	9+	2500	0	2
Catterick	1023·4	+10	-	0	m	36	85	4	5	-	-	10	10	1500	1	*
Tynemouth	1023·8	+2	W	2	c	38	85	5	5	-	-	9+	9+	2500	1	2
St. Abbs Head	1023·6	+19	NW	3	r$_0$r$_0$	41	97	4	5	-	-	10	10	800	1	2
Leuchars	1024·7	+14	NW	2	z$_0$	37	92	6	5	-	-	10	10	4000	1	*
Renfrew (Abbots I.)	1025·2	+12	-	0	F	31	97	1	-	-	-	10	10	<150	1	*
Eskdalemuir	1023·5	+10	NNE	3	d$_0$d$_0$	38	92	5	-	2	-	10	10	220	1	*
Point of Ayre	1022·7	+10	NE'E	3	b	40	85	7	-	-	-	0	0	-	0	2
Tiree	1023·1	+10	NE	2	id$_0$	45	97	6	5	1	-	7-8	9+	1500	1	2
Stornoway	1027·3	+18	NNE	5	c	43	65	8	5	7	-	7-8	9+	2500	1	2
Dalwhinnie	*	+20	N	2	c	36	97	5	5	-	-	10	10	800	1	*
Aberdeen	1025·4	+18	N'W	2	c	39	92	6	5	-	-	7-8	7-8	2500	1	1
Wick	1025·8	+14	NNE	5	c	41	65	7	5	7	8	7-8	9+	1500	1	2
Lerwick	1026·7	+10	N	5	c	33	85	8	8	7	-	7-8	10	1500	1	*
Blacksod Point	1024·0	+4	-	0	bc	38	92	7	-	7	-	0	4-6	-	0	2
Malin Head	1023·0	+4	W	2	df	45	97	*	5	-	-	9+	9+	2500	0	3
Aldergrove	1023·8	+12	NE'E	1	z$_0$	34	97	5	5	-	-	Tr	Tr	2500	1	*
Birr Castle	1022·1	+4	NNW	2	c	37	85	8	5	-	-	9	9+	2500	1	*
Valentia Obsy. †	1021·6	+2	ENE	3	bc	37	85	7	5	3	-	4-6	4-6	2500	0	2
Roches Point	1020·6	+6	N'E	4	c	38	85	7	5	-	-	9	9	2500	1	3

PAST 24 HOURS.

Stations	Weather 7h.—13h. 19th (37)	Weather 13h.—18h. 19th (38)	Weather 18h. 19th to 1h. 20th (39)	Weather 1h.—7h. 20th (40)
London (Kew)	cm$_0$om	om	omr$_0$m$_0$m	cm$_0$
Croydon	om$_0$om	omd$_0$d$_0$	omcm$_0$	cm$_0$
S. Farnborough	om$_0$od$_0$o	m$_0$id$_0$go	d$_0$omir$_0$c	imz$_0$m$_0$c
Boscombe Down	om$_0$	om$_0$	om$_0$d$_0$d$_0$om$_0$	oid$_0$r$_0$om$_0$
Calshot (Soton.)	ir$_0$cm$_0$		ffir$_0$id$_0$m	id$_0$r$_0$cm$_0$
Lympne	om$_0$	om$_0$r$_0$r$_0$	cm$_0$ir$_0$	cir$_0$cm$_0$z$_0$
Manston	cm$_0$	cr$_0$r$_0$m$_0$	r$_0$r$_0$cz$_0$	cbccz$_0$
Shoeburyness	o	om$_0$	*	c
Felixstowe	om$_0$	om$_0$cm$_0$	cm$_0$bm$_0$	bm$_0$oid$_0$m$_0$
Gorleston	c	cb	bbc	bccoid$_0$
Mildenhall	om$_0$	om$_0$bm$_0$	bm$_0$x	bxcd$_0$m
Cranwell	cm$_0$	cm$_0$cm$_0$	c,b, om$_0$	cm$_0$id$_0$m
Birmingham	o	oz	*	bcom
Upper Heyford	cm$_0$	fe/fcm$_0$	*	cm$_0$bcm$_0$bc
Ross-on-Wye	om$_0$	om$_0$	om$_0$oc	co
Hartland Point	r$_0$roso	rs$_0$c	c	c
Bristol	cm$_0$	cm$_0$	cm$_0$irc	cd$_0$cm$_0$
Portland Bill	orrc	o	o	orr
Plymouth	rrr$_0$r$_0$m	rrcoirm$_0$	oir$_0$cm$_0$	cir$_0$m$_0$
The Lizard	c	cpre	od$_0$d$_0$	cid$_0$o
Scilly (St. Mary's)	c	c	cid$_0$c	cid$_0$cy
Guernsey	cid$_0$o	or$_0$rr	*	oc
Pembroke	bcm$_0$c	c	cbc	bc
Holyhead	bcbz$_0$		m$_0$cb	bbcm$_0$d$_0$
Chester (Sealand)	bccmbcz$_0$	bz$_0$sfx	bfFfx	bFFxo
Manchester	bczffz	bczbff	bffxbmbcmx	bccmxid$_0$
Spurn Head	oc	c	cojd$_0$	c
Catterick	cxbcm$_0$	cm$_0$om	oid$_0$m	id$_0$mcm$_0$
Tynemouth	bcc	cm	cidoir	oir$_0$
St. Abbs Head	co	or$_0$f	ir$_0$c	cir
Leuchars	bcmxcm	cm$_0$irid	cm$_0$c	c
Renfrew (Abbots I.)	bFFx	bffd$_0$dFF	cFFx	bffxom
Eskdalemuir	bx	bccxo	d$_0$d$_0$c	c
Point of Ayre	bcb	bx	cbc	c
Tiree	od$_0$d$_0$	od$_0$r	idord	odrdr
Stornoway	cpr$_0$	cpr$_0$	c	c
Dalwhinnie	cirf	cid	* *	cir$_0$
Aberdeen	ffcir$_0$	ccz$_0$	cz$_0$	cz$_0$
Wick	cpr$_0$c	cpr$_0$c	c	c
Lerwick	bcc	c	c	c
Blacksod Point	c	bc	c	b
Malin Head	c	cz$_0$zc	c	c
Aldergrove	bxm$_0$bcm$_0$	bm$_0$	bm$_0$xom$_0$	om$_0$d$_0$d$_0$c
Birr Castle	cb	c	b	cb
Valentia Obsy. †	bbcc	cbc	cbex	bcxbxm$_0$
Roches Point	c	c	cbc	cw

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_o$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_o$/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r$_o$, slight rain. rr, continuous rain.
<, less than (for cloud height). ⁄gale.
⊕ Solar halo. Ⓤ lunar halo. ⌂Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.

Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.

An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.

"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.

"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:— Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

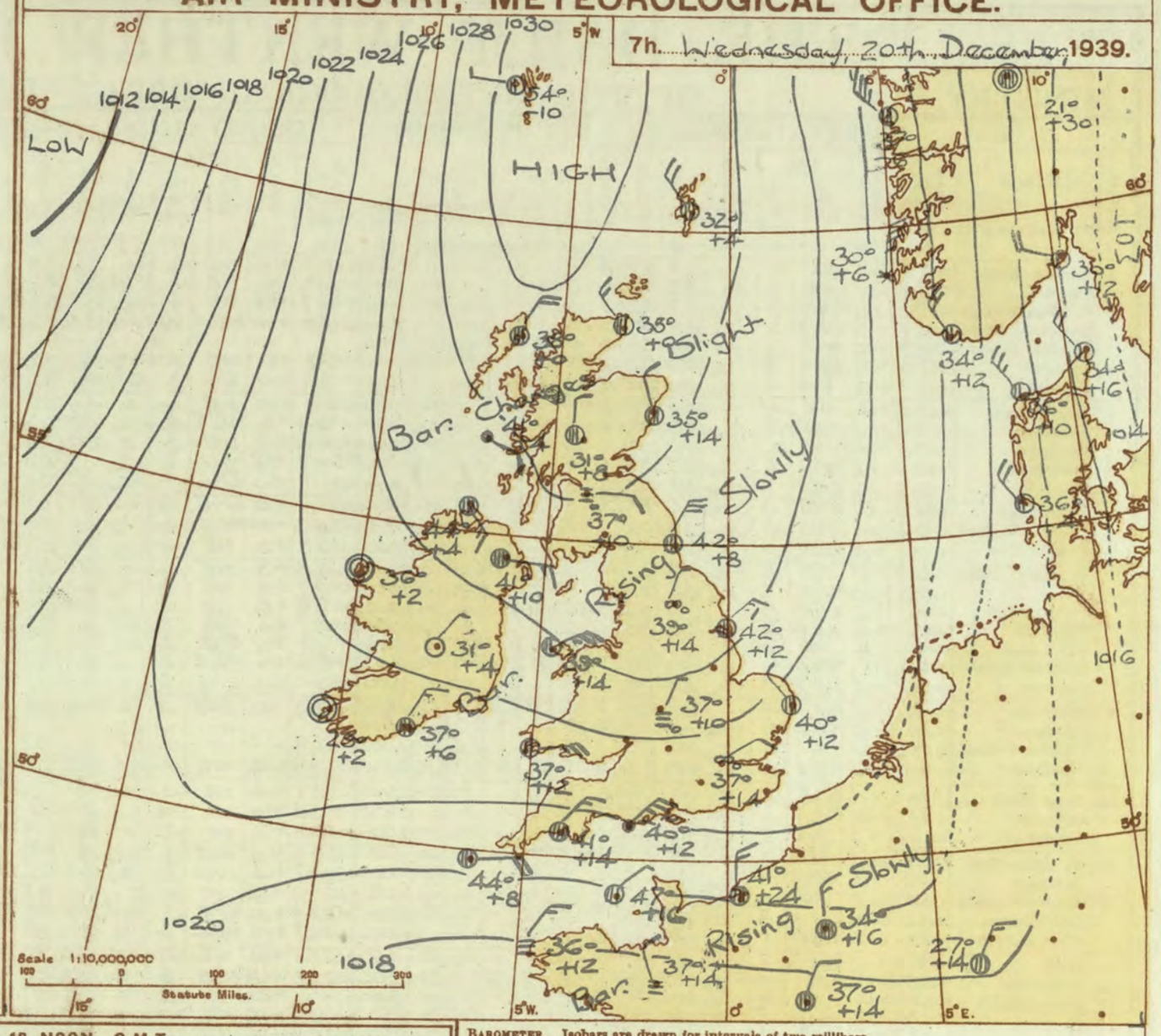
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. „ wet.
2 .. „ flooded.
3 .. „ frozen hard and dry.
4 .. „ partly covered with snow or hail.
5 .. „ covered with ice or glazed frost.
6 .. „ covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. „ covered with snow, less than 6 ins., but ground frozen.
9 .. „ covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

Note.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Wednesday, 20th December, 1939.



Districts.	Forecasts for the 24 hours commencing 12 noon, G.M.T. 20th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Light or moderate northeast wind, veering east or southeast; cloudy, rain or sleet showers, becoming fair with variable cloud; somewhat colder.
5 S.W. England 6 South Wales ... 7 North Wales ...	Moderate east or southeast wind, fresh locally on coast; cloudy, local drizzle, brighter intervals locally later; rather cold.
8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Light east to south or variable wind; cloudy, slight local wintry showers, some brighter intervals locally; cold.
13 A. W. Scotld. B.N.W.Scotland.	Wind veering south and freshening; fair; rather cold.
14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Light variable wind, finally southwest; fair: cold, frost locally.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Light or moderate southeast wind; mainly fair with variable cloud; rather cold.

Barometer. Isobars are drawn for intervals of two millibars.
Wind, Weather Symbols. For explanation see opposite page.
Sea Disturbance. ~~ Rough. ≈≈ High.
Barometric Change from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

An anticyclone off North Scotland is moving south-southeast and will probably reach Holland by tomorrow morning, while pressure falls decidedly in Iceland.

FURTHER OUTLOOK.

Milder in Northwest with strong south to southwest winds and rain later; fair in Southeast with local fog and frost.

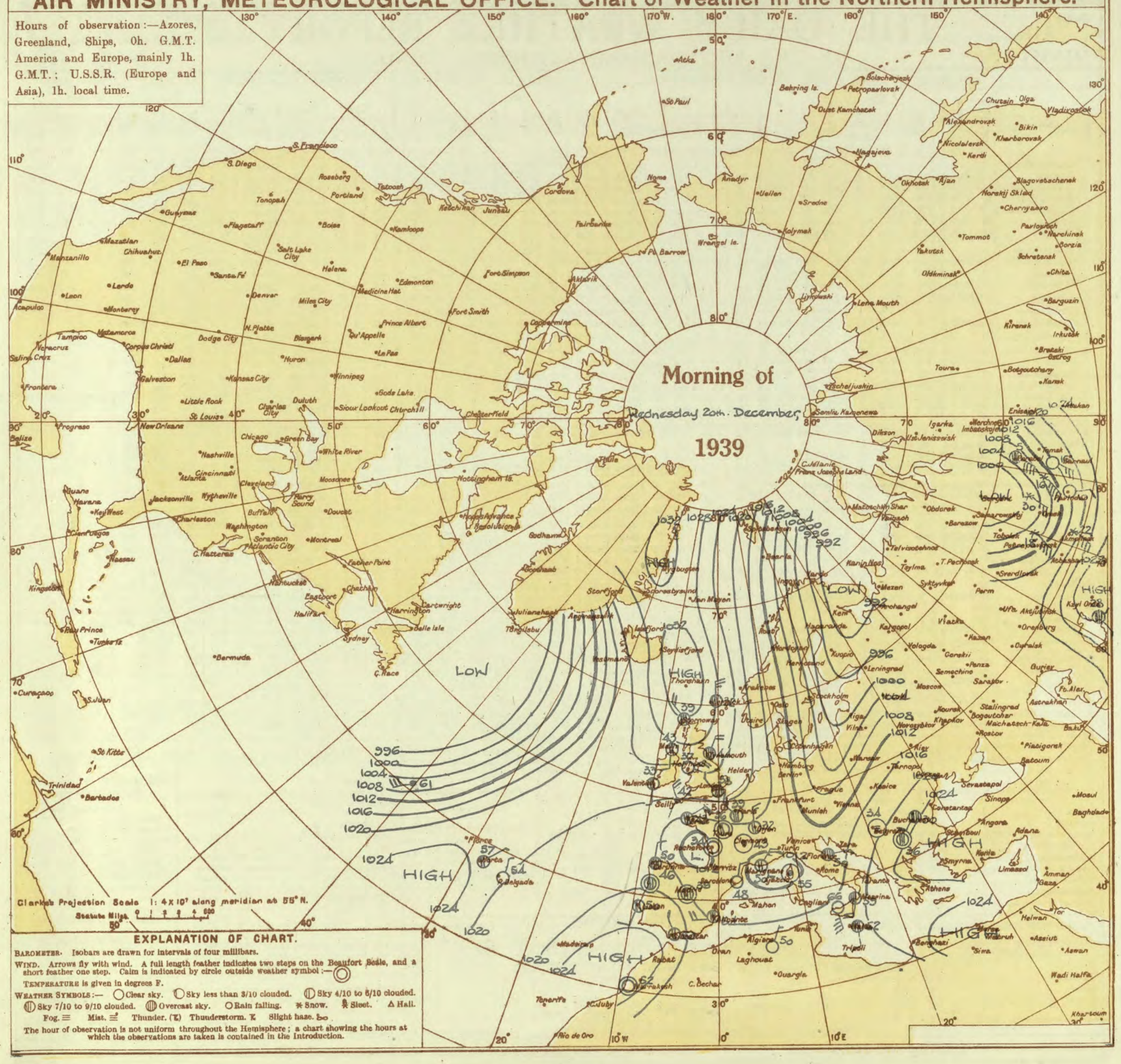
Forecasts issued at 1100 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.
G.973/3797 No. 9109 D.4628 Gp. 846 25110 11/39

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

Hours of observation :—Azores, Greenland, Ships, 0h. G.M.T. America and Europe, mainly 1h. G.M.T.; U.S.S.R. (Europe and Asia), 1h. local time.



EXPLANATION OF CHART.

BAROMETER. Isobars are drawn for intervals of four millibars.

WIND. Arrows fly with wind. A full length feather indicates two steps on the Beaufort Scale, and a short feather one step. Calm is indicated by circle outside weather symbol :—

TEMPERATURE is given in degrees F.

WEATHER SYMBOLS :— Clear sky. Sky less than 3/10 clouded. Sky 4/10 to 6/10 clouded. Sky 7/10 to 9/10 clouded. Overcast sky. Rain falling. Snow. Sleet. Hail. Fog. Mist. Thunder. Thunderstorm. Slight haze.

The hour of observation is not uniform throughout the Hemisphere; a chart showing the hours at which the observations are taken is contained in the Introduction.

Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Wednesday, 20th December 1939.
No. 28,517.

OBSERVATIONS at 1 hr. G.M.T. 20th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon	217	1020·8	+8	NE	2	zo	38	85	5	5	–	–	10	10	1500
	S. Farnborough	226	1021·1	+10	NE'N	3	iro	37	85	4	5	–	–	10	10	2500
	Boscombe Down	417	1020·7	+10	NE	3	ido	36	85	5	5	–	–	10	10	2500
	Calshot (Sthmtn.)	8	1019·4	+6	NE'N	3	ido	39	92	4	5	–	–	10	10	800
	Lympne	346	1019·8	+6	NE	4	iro	39	92	6	5	–	–	10	10	4000
	Manston	154	1020·7	+12	E'N	3	zo	40	75	6	5	7	–	4-6	9+	1500
2	Shoeburyness	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe	15	1020·7	+6	NNE	3	zo	34	85	6	–	3	–	0	Tr	–
	Gorleston	5	1021·7	+10	NNE	3	bc	39	75	7	5	–	–	4-6	4-6	2500
	Mildenhall	19	1022·2	+6	NNE	2	zo	30	97	5	–	–	/	0	Tr	–
	Cranwell	240	1023·2	+10	NE	1	zo	37	92	5	5	–	–	9+	9+	1500
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1022·6	+8	NNE	3	zo	34	92	6	5	–	–	9	9	4000
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1019·3	+14	E	4	c	39	85	8	5	–	–	9	9	2500
	Bristol	209	1021·7	+6	NE'N	3	o/r	37	85	6	5	–	–	10	10	1500
	Portland Bill	32	1018·5	+8	NE	4	o	39	92	7	5	–	–	10	10	1500
	Plymouth	82	1018·8	+12	NE'E	3	zo	40	85	6	6	2	–	7-8	10	1500
	The Lizard	240	1017·4	+6	NE	5	dodo	41	97	6	5	–	–	10	10	800
	Scilly (St. Mary's)	163	1017·4	+10	NE'E	4	ido	42	97	6	8	–	–	10	10	1500
	Guernsey	175														
6	Pembroke	142	1020·7	+6	E'N	4	bc	36	85	6	5	–	–	2-3	2-3	2500
7	Holyhead	26	1022·6	+6	NE'E	5	b	37	92	5	–	–	–	0	0	–
	Chester (Sealand)	16	1024·7	+10	–	0	bF+	24	97	0	–	–	–	0	0	–
8	Manchester	70	1024·5	+8	NE	1	m	32	85	4	5	–	–	7-8	7-8	2500
10	Spurn Head	29	1023·2	+2	NNW	2	ido	41	92	7	5	–	–	10	10	1500
	Catterick	175	1024·5	+2	–	0	ido	39	92	5	5	–	–	10	10	1500
	Tynemouth	108	1024·7	+12	NE	4	o/r	44	92	7	–	2	–	10	10	1500
11	St. Abbs Head	280	1026·3	+10	NNE	2	c	42	75	8	2	1	1	4-6	7-8	1500
	Leuchars	36	1027·5	+14	NNE	1	c	37	85	8	5	–	–	9+	9+	4000
12	Renfrew (Abbots I.)	19	1027·4	+10	–	0	f–	33	92	2	–	–	–	10	10	<150
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1024·3	+4	E	4	bc	43	92	7	5	3	–	1	4-6	2500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway	80	NW'N	7	NE	4	c	39	65	7	5	1	–	7-8	10	2500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick	81	1020·3	+10	N	5	c	35	75	7	5	7	–	7-8	9+	1500
16	Lerwick	156	1028·2	+8	N	5	c	32	92	8	8	7	–	7-8	9+	1500
17	Blacksod Point	18	1024·9	+6	–	0	c	39	92	8	–	6	–	0	7-8	–
18	Malin Head	84	1025·4	+10	S	2	bc	43	85	7	4	–	–	4-6	4-6	2500
	Aldergrove	268	1025·3	+6	NNE	1	zo	37	85	6	5	–	–	10	10	1500
19	Birr Castle	173	1023·8	+6	NE	1	b	30	97	8	–	–	–	0	0	–
20	Valentia Obsy.	30	1022·5	+6	S	2	bc	33	85	7	5	3	–	Tr	2-3	4000
	Roches Point	22	1022·3	+6	NE	3	bc	37	92	7	5	–	–	2-3	2-3	2500

OBSERVATIONS at 7 hr. G.M.T. 20th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1023·9	+16	NNE	3	zo	37	85	6	5	–	–	9	9	4000	1	*
Croydon	1023·3	+14	ENE	2	zo	37	85	5	5	–	–	7-8	7-8	4000	1	*
S. Farnborough	1023·6	+14	ENE	3	zo	37	85	6	5	–	–	9+	9+	4000	1	*
Boscombe Down	1023·2	+18	NE	3	o/r	37	85	6	5	–	–	10	10	4000	1	*
Calshot (Sthmtn.)	1022·2	+14	NE	3	zo	40	85	6	5	–	–	10	10	1500	1	2
Lympne	1022·7	+18	NE	3	c	38	75	7	5	7	–	4-6	7-8	5700	1	§3
Manston	1023·0	+14	ENE	3	zo	41	65	6	5	–	–	9+	9+	2500	0	*
Shoeburyness	1023·6	+2	NE'N	1	cm	39	85	4	4	7	–	4-6	10	4000		*
Felixstowe	1023·8	+18	NE	1	ido	36	92	7	5	–	–	10	10	2500	1	2
Gorleston	1023·5	+12	NW'W	1	c/d	40	92	5	6	–	–	10	10	1500	1	2
Mildenhall	1024·3	+10	SW'W	2	ido	33	97	4	5	–	–	10	10	1500	5	*
Cranwell	1025·2	+14	NNE	1	ido	38	97	4	5	–	–	9	9	1500	1	*
Birmingham	1025·5	+10	NNE	1	m	37	85	4	5	–	–	10	10	800	1	*
Upper Heyford	1024·8	+6	NE	2	zo	35	92	6	5	–	–	10	10	800	1	*
Ross-on-Wye	1024·9	+12	NE'E	2	o	36	85	7	5	–	–	10	10	1500	1	*
Hartland Point	1021·4	+16	E	4	c	39	85	8	5	2	–	7-8	9+	2500	1	8
Bristol	1021·4	+14	E'N	3	zo	37	85	6	5	7	–	7-8	9+	2500	1	*
Portland Bill	1020·5	+12	ENE	5	rr	40	92	7	5	–	–	10	10	1500	1	4
Plymouth	1020·7	+14	NE'E	3	o/r	41	85	6	5	–	–	10	10	1500	1	2
The Lizard	1019·9	+14	NE	5	o	43	97	6	5	–	–	10	10	1500	1	2
Scilly (St. Mary's)	1019·2	+8	E'N	4	c	44	55	6	8	6	–	4-6	7-8	1500	1	3
Guernsey	1019·2	+16	ENE	1	c	47	85	6	8	–	–	10	10	1500	1	3
Pembroke	1023·0	+12	E'N	5	bc	37	85	6	5	–	–	4-6	4-6	2500	1	2
Holyhead	1024·9	+14	ENE	5	bc	39	85	6	5	–	–	4-6	4-6	2500	1	3
Chester (Sealand)	1026·5	+10	–	0	F–	31	92	1	–	–	–	10	10	<150	3	*
Manchester	1026·3	+10	ENE	1	m	35	97	4	5	–	–	10	10	1500	0	*
Spurn Head	1026·0	+12	ENE	3	c	42	85	7	5	4	–	2-3	7-8	1500	1	2
Catterick	1027·3	+14	N'E	1	zo	39	92	6	5	–	–	9	9+	4000	1	*
Tynemouth	1027·6	+8	NE	6	c/d	42	85	7	6	–	–	10	10	1500	1	3
St. Abbs Head	1028·6	+12	NNE	3	ir	38	85	7	8	2	–	7-8	10	1500	1	2
Leuchars	1029·7	+12	N	2	c	35	85	8	5	–	–	9	9	4000	1	*
Renfrew (Abbots I.)	1029·6	+10	E	2	m	37	75	4	5	–	–	10	10	2500	1	*
Eskdalemuir	1028·6	+10	NNE	4	c	35	85	7	5	–	–	7-8	7-8	1500	5	*
Point of Ayre	1026·7	+10	E'S	4	c	43	85	7	5	1	–	9	10	2500	0	3
Tiree	1027·4	+4	ESE	2	ido	41	92	7	5	–	–	9	9	1500	1	2
Stornoway	1029·7	0	NE	4	c	38	65	7	5	1	–	4-6	10	2500	1	2
Dalwhinnie	1029·6	+8	N	2	c	31	92	7	4	7	–	2-3	10	2500	0	*
Aberdeen	1030·2	+14	N'W	2	o	35	75	6	5	–	–	10	10	2500	1	1
Wick	1029·8	0	NW	3	c	35	65	7	5	7	–	7-8	10	1500	1	2
Lerwick	1028·8	+4	NW	4	c	32	97	8	5	2	–	7-8	10	1500	1	*
Blacksod Point	1025·8	+2	–	0	b	36	92	8	–	–	–	0	0	–	0	2
Malin Head	1027·0	+4	SE	3	c	44	85	7	8	–	–	9	9	2500	1	3
Aldergrove	1026·9	+10	E	3	o/d	41	85	6	5	–	–	10	10	2500	1	*
Birr Castle	1024·9	+4	NE	1	b	31	97	8	–	–	–	0	0	–	1	*
Valentia Obsy.	1023·0	+2	–	0	b	29	92	6	–	–	–	0	0	–	3	3
Roches Point	1023·3	+6	NE	3	fs	37	92	7	5	–	–	9+	9+	2500	1	2

PAST 24 HOURS.

Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 19th Hrs. (36)
London (Kew)	38	37	35	–	0·1	0·0
Croydon	38	35	35	Tr	–	0·0
S. Farnborough	37	36	35	Tr	0·5	0·0
Boscombe Down	36	35	34	Tr	1	0·0
Calshot (Sthmtn.)	40	38	37		0·4	0·0
Lympne	39	37	36	0·3	Tr	0·0
Manston	41	30	36	Tr	Tr	0·0
Shoeburyness	41	33	30	–	Tr	0·0
Felixstowe	39	33	29	–	–	0·0
Gorleston	40	39	38	–	Tr	*
Mildenhall	38	28	22	–	0·3	0·0
Cranwell	39	34	30	–	0·1	0·0
Birmingham	38	32	27	*	–	0·0
Upper Heyford	36	32	28	–	–	*
Ross-on-Wye	38	35	32	–	–	0·0
Hartland Point	40	37	37	1	–	0·0
Bristol	37	36	35	–	Tr	0·0
Portland Bill	40	36	*	1	2	*
Plymouth	40	39	38	7	Tr	0·0
The Lizard	40	38	*	0·5	0·4	0·0
Scilly (St. Mary's)	42	40	*	–	0·1	0·1
Guernsey	45	44	43	1	–	0·0
Pembroke	40	34	*	–	–	0·0
Holyhead	41	36	32		–	4·3
Chester (Sealand)	41	23	22	–	–	1·3
Manchester	39	29	18	–	Tr	0·0
Spurn Head	41	37	*	–	Tr	0·0
Catterick	38	35	40	–	0·4	0·7
Tynemouth	38	37	35	–	1	*
St. Abbs Head	41	38	*	1	0·6	*
Leuchars	38	35	32	0·1	–	0·0
Renfrew (Abbots I.)	31	30	31	0·2	1	0·0
Eskdalemuir	38	34	33	2	0·2	4·0
Point of Ayre	41	39	*	–	–	4·0
Tiree	47	40	29	2	2	0·0
Stornoway	44	37	*	0·1	–	0·0
Dalwhinnie	37	30	30	0·6	Tr	0·0
Aberdeen	40	34	31	0·2	–	0·0
Wick	45	34	*	Tr	–	*
Lerwick	35	31	*	–	–	0·0
Blacksod Point	39	35	*	–	–	*
Malin Head	46	40	*	Tr	0·5	0·0
Aldergrove	40	30	18	–	Tr	1·2
Birr Castle	38	27	26	–	–	1·1
Valentia Obsy.	38	28	23	*	Tr	0·4
Roches Point	41	34	*	–	Tr	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Temperature Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
		24 hrs. ended 9h.											
Kew	18	cmoom	om	omrocmo	38	37	35	–	0·1	0·0	*	*	
Croydon	217	omoom	omdodo	omcmo	38	35	35	Tr	–	0·0	*	*	
Greenwich (Royal Observatory)	149	om	omcl	drs,pbcf	38	34	30	Tr	0·3	0·0	92	93	3
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	40	37	34	–	–	*	87	91	*
Regents Pk. (Botanic Gardens)‡	163	*	*	*	36	34	28	–	0·1	0·0	91	91	*
Camden Square	110	o	o	*	38	34	23	–	–	*	94		*
Kensington	80	cm	cz	*	39	35	30	–	Tr	0·0	91	86	*
Hampstead Observatory	450										*		*

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 20th.

South Kensington Max.	Time.	Min.	Time.

Kew Observatory Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 19th December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	7h. G.M.T. 20th December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1014·2	NNE	1	bc	41	1018·5	NNW	3	m	34	46	34	0·4	–
Brussels														
Berlin														
Zürich														
Rome						1012·3	ENE	2	bcf	48	*	*		*

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22.—Code for surface visibility.

Code		Objects not visible at
0	Dense fog	55 yards.
1	Thick fog	220 ,,
2	Fog	550 ,,
3	Moderate fog	1,100 ,,
4	Mist or haze	1¼ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6¼ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30.—Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Thursday, 21st December, 1939.

No. 28518.

OBSERVATIONS at 13h. G.M.T. 20th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1025·8	0	NE	3	m/d	41	92	4	5	-	-	10	10	2500
	Croydon	1025·7	0	NE	1	df	40	97	3	5	-	-	10	10	450
	S. Farnborough	1025·9	0	NE	2	o/d	40	92	5	5	-	-	10	10	450
	Boscombe Down	1025·7	+24	NE	2	id$_o$	39	97	5	5	-	-	10	10	800
	Calshot (Soton.)	1026·0	+6	NE'N	2	z$_o$	42	85	6	5	3	-	2-3	4-6	4000
	Lympne	1025·4	+2	ENE	2	c	41	85	8	5	-	-	7-8	7-8	4000
	Manston	1025·0	0	E	1	c	45	75	7	5	7	-	7-8	9+	1500
2	Shoeburyness	1025·4	0	N'E	1	id$_o$	42	92	4	4	7	-	4-6	10	4000
	Felixstowe	1025·2	+6	E	3	o/d	43	92	7	5	-	-	10	10	450
	Gorleston	1026·1	+6	NE	4	c	42	85	7	8	-	-	9+	9+	2500
	Mildenhall	1026·7	+8	ENE	4	ir$_o$	43	85	7	5	7	-	7-8	9+	1500
	Cranwell	1028·1	+10	E	3	c	41	75	8	8	6	-	7-8	9+	2500
3	Birmingham	1027·6	+2	ENE	3	z$_o$	40	85	5	7	7	-	2-3	4-6	1500
	Upper Heyford	1026·9	+4	E'N	3	id$_o$	40	85	6	5	-	-	10	10	800
4	Ross-on-Wye	1026·3	0	NE	2	z$_o$	42	75	6	7	-	1	7-8	7-8	2500
5	Hartland Point	1023·6	+10	E	5	c	40	85	8	4	2	-	7-8	9+	2500
	Bristol	1026·4	-2	ENE	3	z$_o$	41	85	6	5	-	-	9+	9+	1500
	Portland Bill	1023·7	+16	ENE	3	c	42	92	7	5	-	-	10	10	2500
	Plymouth	1023·4	0	E'N	4	c	42	75	8	5	2	-	9	10	1500
	The Lizard	1022·5	+14	E'N	5	c	43	92	6	5	2	-	9	10	1500
	Scilly (St. Mary's)	1021·7	+4	E'N	5	c	46	92	6	8	6	-	4-6	9+	1500
	Guernsey	1021·9	+6	ENE	2	c	46	65	8	8	7	-	7-8	9+	2500
6	Pembroke	1025·7	+4	ESE	4	c	43	85	7	5	6	-	7-8	9+	2500
7	Holyhead	1027·3	+2	E'N	5	c	43	85	6	5	-	-	9+	9+	4000
	Chester (Sealand)	1028·5	0	ENE	1	m/f	40	85	4	5	-	-	10	10	2500
8	Manchester	1028·7	+4	E'N	3	z$_o$	42	75	5	5	-	-	10	10	2500
10	Spurn Head	1028·2	+4	NE'E	3	c	41	75	7	5	4	3	7-8	9	1500
	Catterick	1029·4	0	NNE	1	pr	39	85	6	8	-	-	9+	9+	1500
	Tynemouth	1030·1	+4	E	4	c	40	75	8	8	-	-	9	9	1500
11	St. Abbs Head	1030·3	0	NNE	3	c	42	92	8	8	6	-	4-6	7-8	1500
	Leuchars	1030·8	-4	N	1	c	37	75	8	5	-	-	9+	9+	4000
12	Renfrew (Abbots I.)	1031·1	-2	E'S	2	z$_o$	38	65	5	5	-	1	10	10	4000
	Eskdalemuir	1029·8	-4	NE'E	4	c	39	85	8	5	-	-	9+	9+	1500
	Point of Ayre	1028·9	+2	E'S	4	c	42	85	8	5	1	-	7-8	10	2500
13A	Tiree	1028·2	0	SE	4	c	42	85	8	5	-	-	9	9	2500
13B	Stornoway	1029·6	-10	ESE	3	c	40	65	7	5	1	-	7-8	10	2500
15	Dalwhinnie	1030·7	-6	S	3	c	32	97	8	5	6	4	4-6	9+	4000
	Aberdeen	1030·8	-4	NW	2	c	35	75	6	5	-	-	9+	9+	2500
	Wick	1030·5	-2	W	1	c	35	75	8	5	7	7	7-8	10	1500
16	Lerwick	1029·4	0	WNW	3	c	35	75	8	5	7	-	4-6	9	1500
17	Blacksod Point	1026·0	-4	ESE	3	bc	45	85	7	-	3	-	0	4-6	-
18	Malin Head	1027·8	0	S	3	c	42	85	7	8	-	-	7-8	7-8	2500
	Aldergrove	1028·8	+4	E	4	z$_o$	41	75	6	5	2	-	9+	10	4000
19	Birr Castle	1027·0	+6	SSE	1	c	42	97	8	4	-	-	7-8	7-8	2500
20	Valentia Obsy. †	1024·4	+2	-	0	b	39	85	7	7	-	-	Tr	Tr	4000
	Roches Point	1024·7	-2	E	4	c	45	75	7	5	-	-	7-8	7-8	2500

OBSERVATIONS at 18h. G.M.T. 20th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	°F. Temp. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1027·4	+12	ENE	4	d$_o$d$_o$	41	92	4	5	-	-	10	10	1500	1	*
Croydon	1027·1	+14	ENE	2	d$_o$d$_o$	40	97	4	6	2	-	9	10	450	1	*
S. Farnborough	1027·3	+10	NE'E	2	df	41	92	3	5	-	-	10	10	800	1	*
Boscombe Down	1027·0	+10	NE'E	3	o/d	40	92	6	5	-	-	10	10	1500	1	*
Calshot (Soton.)	1026·2	+12	NE	3	of	42	85	3	5	-	-	10	10	1500	1	2
Lympne	1028·0	+26	E'S	3	r$_o$r$_o$	40	92	6	5	-	-	9+	9+	1500	1	§2
Manston	1027·4	+12	ESE	4	ir$_o$	41	85	6	6	-	-	10	10	1500	1	*
Shoeburyness	1027·5	+20	NE'N	2	ir	41	92	4	5	-	-	10	10	800	1	*
Felixstowe	1027·2	+2	NE	3	c	41	85	7	5	-	-	9+	9+	7200	1	3
Gorleston	1028·3	+10	ENE	2	c/pr	40	75	7	8	-	-	9+	9+	2500	1	3
Mildenhall	1028·5	+10	E'N	1	z$_o$	39	85	6	5	-	-	10	10	4000	1	*
Cranwell	1029·1	+8	ENE	1	z$_o$	37	85	6	5	-	-	9+	9+	2500	0	*
Birmingham	1028·8	+12	ENE	3	z$_o$	39	75	5	5	-	-	10	10	4000	1	*
Upper Heyford	1027·9	+12	NE'E	2	z$_o$	39	85	6	5	-	-	10	10	1500	1	*
Ross-on-Wye	1027·4	+6	E'N	2	c/r	39	92	6	5	-	-	10	10	800	1	*
Hartland Point	1024·4	+6	E	5	c/r	41	85	8	5	7	-	7-8	9+	2500	1	3
Bristol	1027·2	+6	NE	2	c/r	39	97	5	5	-	-	9+	9+	4000	1	*
Portland Bill	1025·3	+12	ENE	4	c	43	92	7	5	-	-	10	10	2500	1	4
Plymouth	1024·5	+10	E'N	3	ir$_o$	42	85	5	5	2	-	7-8	10	1500	1	2
The Lizard	1023·0	+6	E'N	6	c	46	85	6	8	2	-	9	10	1500	0	3
Scilly (St. Mary's)	1022·6	+10	E'N	5	c	46	85	6	8	6	-	7-8	10	1500	1	3
Guernsey	1023·1	+4	ENE	1	c	44	85	7	8	7	-	4-6	9+	2500	1	3
Pembroke	1025·8	+2	E	4	bc	40	92	7	5	4	-	4-6	4-6	2500	1	2
Holyhead	1028·0	+8	E'N	4	c	42	85	5	5	-	-	10	10	4000	1	2
Chester (Sealand)	1029·3	+10	-	0	m	38	85	4	5	-	-	10	10	4000	1	*
Manchester	1029·8	+12	E'N	2	m	41	75	4	5	-	-	10	10	2500	0	*
Spurn Head	1029·6	+6	E	3	c/pr	40	65	7	5	-	-	9+	9+	800	1	2
Catterick	1030·4	+10	-	0	z$_o$	37	92	6	5	-	-	10	10	4000	1	*
Tynemouth	1030·1	+4	E	4	c	41	65	7	8	-	-	9+	9+	1500	1	2
St. Abbs Head	1030·5	+4	N	2	c	36	92	8	5	2	-	4-6	7-8	1500	0	2
Leuchars	1030·9	+2	-	0	c	34	85	7	5	-	-	10	10	4000	1	
Renfrew (Abbots I.)	1030·7	+2	ENE	1	m	35	75	4	5	-	6	4-6	9+	4000	1	*
Eskdalemuir	1030·3	+4	N	1	c	33	85	7	5	-	-	10	10	1500	1	*
Point of Ayre	1028·9	0	S'E	3	c	42	75	8	8	1	-	7-8	10	2500	0	2
Tiree	1027·4	0	SSE	4	c	41	85	8	5	7	-	4-6	7-8	2500	0	3
Stornoway	1027·2	-6	S	5	c	43	75	7	5	1	-	7-8	10	2500	1	2
Dalwhinnie	1030·2	-8	S	3	c	31	92	7	4	5	-	4-6	9+	2500	3	
Aberdeen	1030·4	-2	-	0	cf+	33	85	2	-	3	-	0	9	-	3	f
Wick	1028·5	-8	S	3	c	36	75	8	5	7	7	7-8	10	1500	1	1
Lerwick	1028·4	-6	SE	2	c	36	65	8	5	7	-	7-8	10	1500	1	•
Blacksod Point	1026·6	+6	ESE	2	b	42	85	7	-	-	-	0	0	-	0	2
Malin Head	1027·9	0	SE	3	c	41	85	7	8	-	-	9	9	4000	0	3
Aldergrove	1029·2	+2	E	2	z$_o$	40	85	6	5	2	-	7-8	10	1500		*
Birr Castle	1026·7	+2	SSE	1	b	34	92	8	-	-	-	0	0	-	1	
Valentia Obsy. †	1024·4	+4	E	3	c	44	85	8	5	3	-	7-8	9	2500	0	2
Roches Point	1025·2	+6	E'S	4	ir$_o$	44	97	7	6	2	-	7-8	10	800	1	3

PAST 24 HOURS. WEATHER.

Stations	7h.—13h. 20th (37)	13h.—18h. 20th (38)	18h. 20th to 1h. 21st (39)	1h.—7h. 21st (40)
London (Kew)	cm$_o$idcm	cdcmd$_o$	cd$_o$r$_o$cm	cm$_o$
Croydon	cm$_o$fof	ofmed$_o$d$_o$	d$_o$dr$_o$rcm	cmm$_o$
S. Farnborough	d$_o$d$_o$m$_o$c	id$_o$fr$_o$o	od$_o$fr$_o$dm$_o$	m$_o$fc
Boscombe Down	omcmoid	om$_o$id$_o$	od$_o$d$_o$idm$_o$	om$_o$
Calshot (Soton.)	cm$_o$bcm$_o$	cm$_o$mf	cffid$_o$	cm$_o$bcm$_o$
Lympne	oc	cm$_o$ddr$_o$r$_o$	cm$_o$r$_o$r$_o$c	cbcbx
Manston	cz$_o$c	ir$_o$cm$_o$ir$_o$	ir$_o$cz$_o$	cz$_o$cy
Shoeburyness	id$_o$m$_o$c	cm$_o$prcm		
Felixstowe	om$_o$id$_o$	ir$_o$id$_o$c	c	c
Gorleston	ocr$_o$	cor$_o$	cpr$_o$c	c
Mildenhall	ofxid$_o$ir$_o$c	cir$_o$ccm$_o$	cm$_o$c	ccm$_o$c
Cranwell	id$_o$m$_o$r$_o$c	cm$_o$	ir$_o$cm$_o$	cm$_o$
Birmingham	odfbc	cz	cz	com
Upper Heyford	id$_o$mcm$_o$c	cid$_o$mcr$_o$r$_o$	cir$_o$mcm	cm$_o$
Ross-on-Wye	omcmbc	cz$_o$omr$_o$	r$_o$om$_o$	om$_o$
Hartland Point	cr$_o$	cr$_o$r$_o$	cbc	bc
Bristol	cm$_o$m	cir$_o$cm$_o$	cr$_o$cd$_o$	cd$_o$m$_o$
Portland Bill	orr	c	cpc	c
Plymouth	cm$_o$d$_o$d$_o$	cir$_o$m$_o$	cir$_o$m$_o$	cir$_o$m$_o$c
The Lizard	cpr$_o$c	c	c	c
Scilly (St. Mary's)	c	bcc	c	cbcc
Guernsey	c	cir$_o$	c	c
Pembroke	bcc	cbc	bcc	cm$_o$
Holyhead	bccm$_o$	cm$_o$c	cm$_o$c	c
Chester (Sealand)	ocFxcm	cmm$_o$	cm	cmm$_o$
Manchester	cmbcffm	cm$_o$cm	czmm$_o$	cm$_o$m
Spurn Head	prc	c	c	c
Catterick	cmcpr$_o$c	cpr$_o$cm$_o$	cm$_o$	cm$_o$
Tynemouth	cpc	c	cm	co
St. Abbs Head	c	rsc	c	cbc
Leuchars	c	ccm$_o$c	cm$_o$x	cbexcx
Renfrew (Abbots I.)	ozcz$_o$	cz$_o$z	cm ffx	cFFx
Eskdalemuir	c	c	c	ccx
Point of Ayre	c	c	c	cbc
Tiree	c	c	c	cbc
Stornoway	c	c	cir	cir
Dalwhinnie	c	c	*	c
Aberdeen	cz$_o$	cz$_o$ff	cifc	cz$_o$
Wick	c	c	c	prc
Lerwick	c	c	cir$_o$	cir
Blacksod Point	bc	bc	bc	c
Malin Head	c	cpr$_o$c	c	c
Aldergrove	ir$_o$id$_o$cm$_o$	cm$_o$	cm$_o$	cm$_o$
Birr Castle	bffc	bcb	b	bx
Valentia Obsy. †	bxb	bbcc	c	cir$_o$c
Roches Point	bcc	cir$_o$	r$_o$r$_o$	cir

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_o$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_o$/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r$_o$, slight rain. rr, continuous rain.
<, less than (for cloud height). ⁄ gale.
⊕ Solar halo. Ⓘ lunar halo. ⌂ Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ See disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

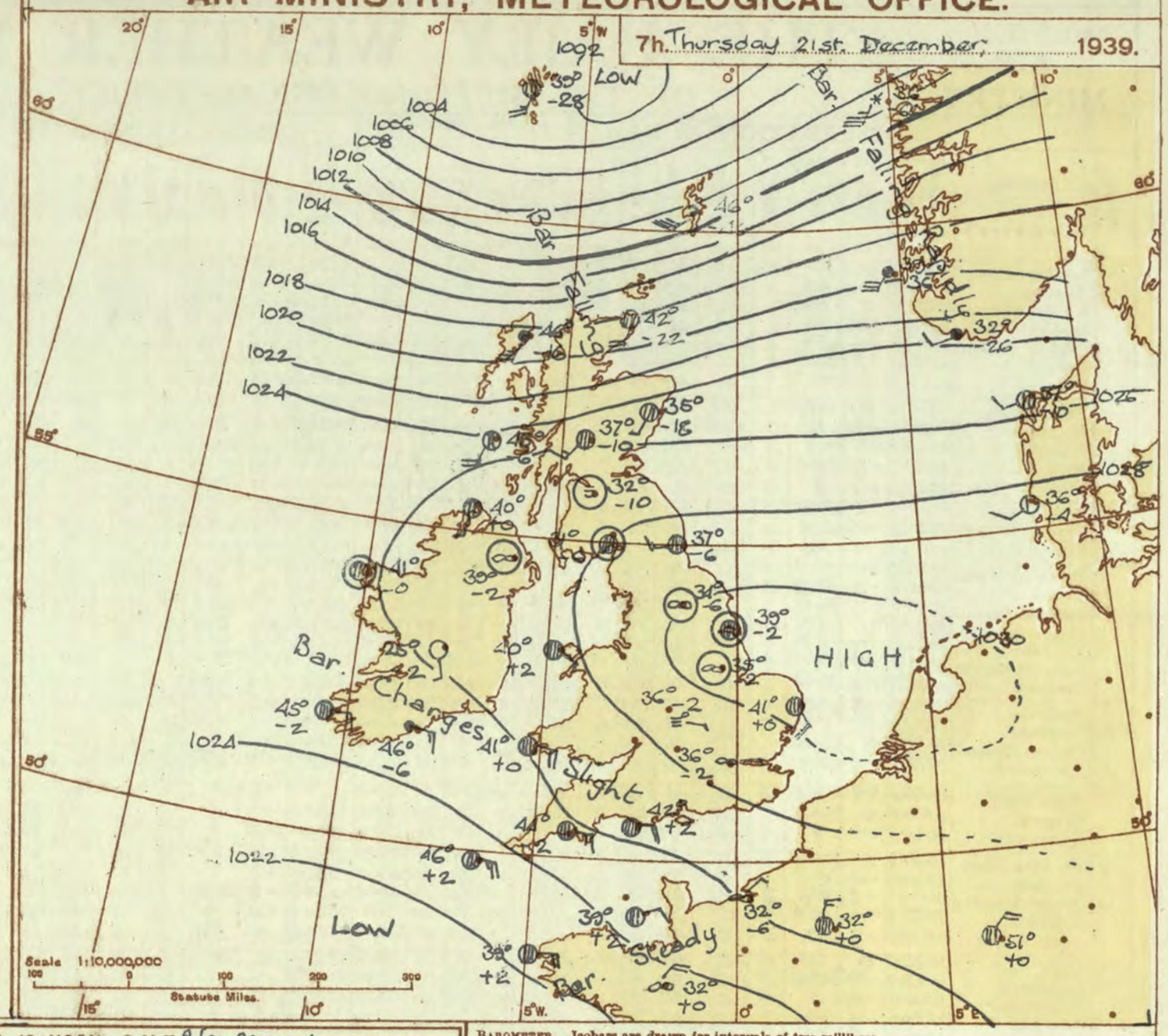
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Thursday 21st. December 1939.



BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 21st December 1939
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Light variable wind; becoming fair to fine; local morning fog; more cloud tomorrow; rather low day temperature, frost locally tonight.
5 S.W. England 6 South Wales ...	Wind southeast moderate to fresh, becoming strong locally; fair today; cloudy, probably some rain tomorrow; rather low temperature, becoming milder.
7 North Wales ... 8 N.W. England 9 N. Midlands ...	Wind becoming westerly, light to moderate; mainly cloudy; some light local rain tomorrow; rather cold.
10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Wind west, moderate, veering Northwest to North, freshening; cloudy occasional rain spreading from the North; rather cold.
13 { A. W. Scotld. B.N.W.Scotland.	Wind west, fresh to strong or gale locally on Northeast coast, veering north, fresh; cloudy; occasional rain; some sleet or snow showers later; average temperature at first then colder.
14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	
17 N. W. Ireland 18 N. E. Ireland	As 7 - 9.
19 S. E. Ireland 20 S. W. Ireland	As 5 - 6.

GENERAL INFERENCE.

An anticyclone over Northwest Germany is moving away Southeast. A deepening depression near the Faeroes will move east-southeast, and will probably be followed by an anticyclone spreading from Greenland. Occasional rain today in Scotland will be followed by colder northerly winds. In the South weather will become fair or fine, with night frost.

FURTHER OUTLOOK.

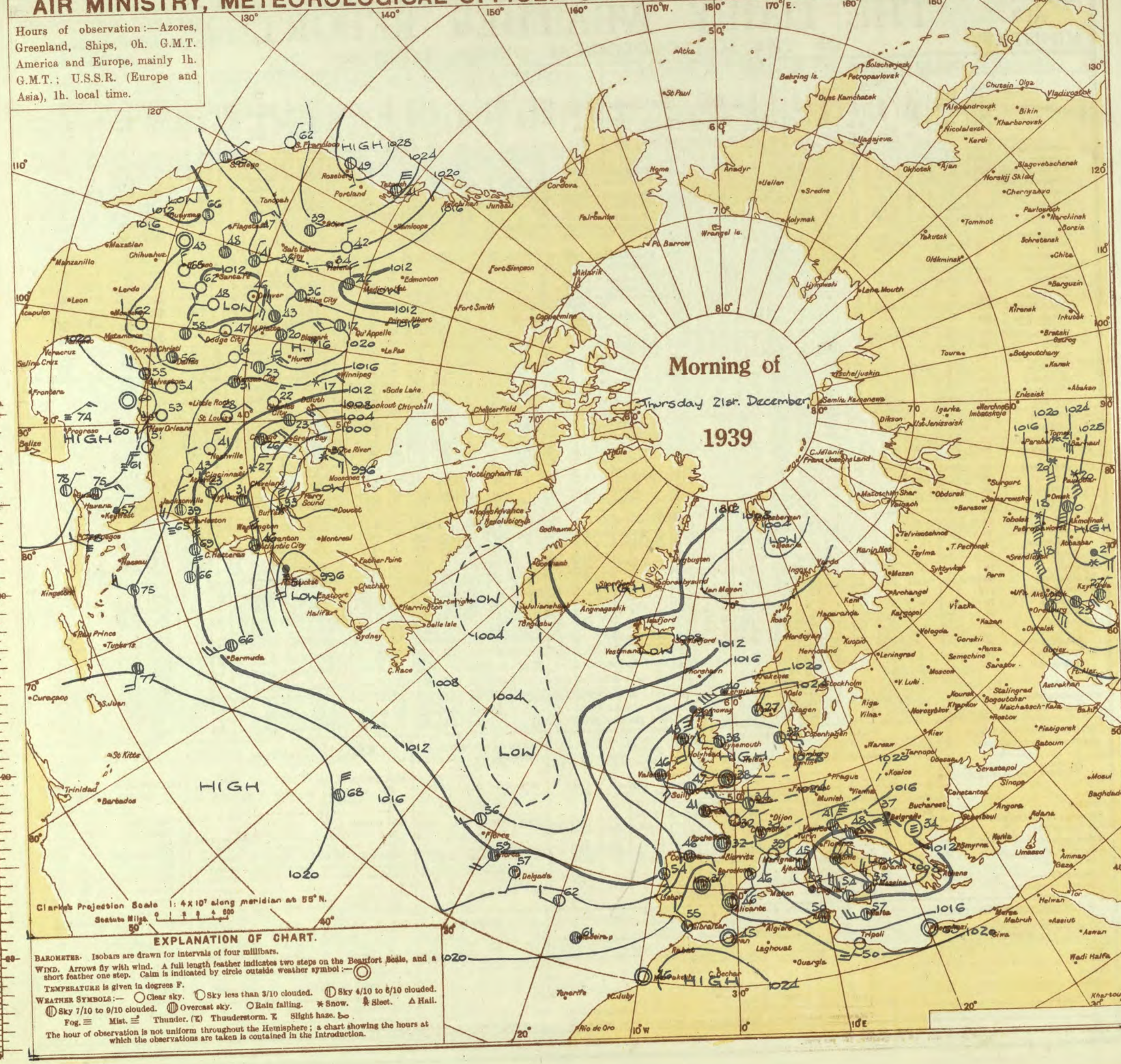
Wintry showers in the North; dull, probably with light local rain in the South.

Forecasts issued at

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Thursday, 21st December, 1939.

No. 28518.

OBSERVATIONS at 1 hr. G.M.T. 21st December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1028·8	+4	-	0	m	38	97	4	5	-	-	10	10	2500
	S. Farnborough	226	1028·9	+2	E	2	m	38	92	4	5	-	-	10	10	4000
	Boscombe Down	417	1028·4	+2	E'N	2	o/d	39	92	6	5	-	-	10	10	4000
	Calshot (Sthmtn.)	8	1027·6	+2	E	4	z0	41	85	5	5	-	-	10	10	2500
	Lympne ...	346	1028·4	-2	ESE	3	c	38	75	7	5	-	-	9+	9+	4000
	Manston ...	154	1028·7	-2	SE	2	z0	40	65	6	5	-	-	10	10	2500
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1028·6	-2	ESE	1	c	40	85	8	5	-	-	9+	9+	4000
	Gorleston ...	5	1029·2	0	E	3	c	40	85	7	8	-	-	10	10	2500
	Mildenhall ...	19	1029·4	-2	E'N	1	c	36	92	7	5	-	-	10	10	4000
	Cranwell ...	240	1029·9	0	-	0	z0	35	97	6	5	-	-	10	10	4000
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1028·9	-2	ENE	2	z0	36	92	6	5	-	-	10	10	2500
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1026·1	+4	ENE	4	bc	40	85	7	5	3	-	4-6	4-6	2500
	Bristol ...	209	1028·3	0	-	0	o/d	39	92	6	5	-	-	10	10	1500
	Portland Bill ...	32	1025·9	-2	SE	4	c	45	85	7	5	-	-	10	10	4000
	Plymouth ...	82	1025·1	+2	E	3	ir0	45	85	6	5	-	-	10	10	1500
	The Lizard ...	240	1023·7	0	E'N	6	c	47	85	8	8	2	-	9	10	1500
	Scilly (St. Mary's)	163	1022·5	0	E	5	c	47	85	7	5	4	3	4-6	7-8	2500
	Guernsey ...	175	1024·5	0	ESE	3	c	42	75	7	2	3	-	2-3	9	4000
6	Pembroke ...	142	1026·8	0	E	4	c	40	92	7	5	6	-	2-3	7-8	2500
7	Holyhead ...	26	1028·2	-4	SE'E	2	c	39	85	7	5	-	-	10	10	2500
	Chester (Sealand)	16	1029·5	-6	-	0	m	37	85	4	5	-	-	10	10	4000
8	Manchester ...	70	1029·8	-8	E'S	3	z0	38	85	5	5	3	-	9	10	2500
10	Spurn Head ...	29	1030·2	0	-	0	c	39	85	8	5	-	-	10	10	1500
	Catterick ...	175	1030·2	-6	-	0	z0	35	97	6	5	-	-	10	10	4000
	Tynemouth ...	108	1030·3	-6	W	2	c	38	85	5	8	-	-	7-8	7-8	1500
11	St. Abbs Head	280	1029·2	-12	SW	2	c	36	75	8	5	6	-	7-8	9+	2500
	Leuchars ...	36	1029·3	-8	-	0	z0	32	85	6	5	-	-	9	9	4000
12	Renfrew (Abbots I.)	19	1029·7	-10	-	0	cf	29	97	3	5	-	7	4-6	9+	2500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1029·0	-2	S	4	c	42	75	7	5	1	-	7-8	10	2500
13A	Tiree ...	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1022·9	-14	S	6	ir	44	92	6	5	7	-	7-8	10	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1023·9	-24	SW	3	c	38	75	7	5	7	-	7-8	10	1500
16	Lerwick ...	156	1020·5	-46	SW	7	ir0	40	85	7	8	2	-	4-6	10	1500
17	Blacksod Point	18	1026·4	-2	ESE	2	bc	41	85	7	-	7	-	0	4-6	-
18	Malin Head ...	84	1026·8	-4	S	4	c	43	75	7	5	-	-	7-8	7-8	2500
	Aldergrove ...	268	1028·3	-6	SSE	1	z0	41	85	6	5	-	-	10	10	4000
19	Birr Castle ...	173	1027·1	-2	SSE	1	b	29	92	8	-	-	-	0	0	-
20	Valentia Obsy.	30	1025·1	0	SE'E	3	c	46	85	8	8	-	-	10	10	1500
	Roches Point	22	1025·8	-2	E'S	4	r0r0	44	97	7	6	2	-	7-8	10	800

OBSERVATIONS at 7 hr. G.M.T. 21st December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1028·5	-4	NE	2	z0	38	85	5	5	-	-	10	10	1500	1	*
Croydon	1028·5	-2	E	1	z0	36	97	5	5	-	-	9	9	4000	1	*
S. Farnborough	1028·4	-6	NE'E	1	of+	37	92	3	5	-	-	10	10	2500	1	*
Boscombe Down	1028·4	-2	ENE	2	z0	36	85	5	5	-	-	10	10	4000	1	*
Calshot (Sthmtn.)	1027·7	-2	ENE	3	z0	39	75	6	5	-	-	9+	9+	4000	1	2
Lympne	1028·4	-2	E	3	bc	32	75	8	-	-		0	2-3	-	1	§
Manston	1028·5	-2	ESE	3	z0	35	55	6	-	7	-	0	1	-	1	*
Shoeburyness																*
Felixstowe	1028·6	0	E'S	3	c	39	65	7	5	-	8	9	9+	5700	1	3
Gorleston	1029·3	0	SE'S	4	c	41	65	6	5	-	-	9	9	2500	1	3
Mildenhall	1029·1	-2	E	1	c	35	97	7	5	-	-	10	10	4000	1	*
Cranwell	1029·3	-2	-	0	z0	35	92	6	5	-	-	10	10	4000	0	*
Birmingham	1028·8	-2	ESE	1	m	36	85	4	5	-	-	10	10	800	1	*
Upper Heyford	1028·6	-4	ENE	1	z0	34	97	6	5	-	-	10	10	4000	1	*
Ross-on-Wye	1028·1	0	NW	1	z0	37	92	5	5	-	-	10	10	800	1	*
Hartland Point	1025·1	0	E	4	bc	40	85	7	5	-	-	4-6	4-6	2500	1	2
Bristol	1028·2	-2	E	1	z0	37	85	6	5	-	-	10	10	1500	1	*
Portland Bill	1026·3	+2	E	4	c	42	92	7	5	-	-	10	10	4000	1	4
Plymouth	1025·4	-2	E'S	3	c	44	75	7	5	2	-	7-8	10	2500	1	2
The Lizard	1024·4	+4	E	6	c	44	85	8	8	2	-	9	10	1500	1	2
Scilly (St. Mary's)	1023·1	+2	E'S	5	c	46	75	6	8	7	-	4-6	10	1500	1	4
Guernsey	1025·0	+2	ENE	2	c	39	75	7	8	2	-	7-8	9+	2500	0	3
Pembroke	1026·0	0	ESE	4	c	41	92	6	5	-	-	9+	9+	2500	1	2
Holyhead	1027·7	-2	SE	1	c	40	85	7	5	-	-	10	10	2500	1	1
Chester (Sealand)	1028·8	-6	SSE	1	m	36	85	4	5	-	-	10	10	4000	1	*
Manchester	1029·0	-6	E'S	2	m	37	85	4	5	-	-	10	10	2500	0	*
Spurn Head	1029·5	-2	-	0	c	39	85	7	5	-	-	10	10	2500	0	0
Catterick	1029·0	-6	-	0	z0	34	97	6	5	-	-	10	10	4000	1	*
Tynemouth	1028·5	-12	WSW	3	o	37	75	6	5	-	-	10	10	1500	1	2
St. Abbs Head	1025·8	-20	WSW	4	bc	34	92	7	4	-	-	2-3	2-3	1500	0	2
Leuchars	1025·9	-16	SW	3	c	33	85	7	5	-	-	9+	9+	4000	1	*
Renfrew (Abbots I.)	1027·5	-10	-	0	of-	32	97	3	5	-	-	10	10	2500	1	*
Eskdalemuir	1028·2	-6	-	0	c	31	92	7	5	-	-	10	10	1500	3	*
Point of Ayre	1028·0	-4	SSW	2	bc	38	85	7	5	-	-	2-3	2-3	1500	0	1
Tiree	1024·1	-6	SW'S	4	bc	45	85	8	8	-	-	4-6	4-6	2500	0	3
Stornoway	1020·3	-16	SSW	5	ir	46	97	6	5	2	-	9	10	1500	1	3
Dalwhinnie	1025·4	-10	SW	3	c	37	85	6	4	-	-	7-8	7-8	1500	3	*
Aberdeen	1022·9	-18	SW'S	1	c	35	75	6	5	-	5	7-8	7-8	2500	3	1
Wick	1018·8	-22	SSW	4	c	42	85	8	5	2	-	7-8	10	1500	1	1
Lerwick	1011·0	-46	SW'W	8	ir0	46	92	7	6	2	-	4-6	10	800	1	*
Blacksod Point	1026·0	0	-	0	bc	41	92	7	5	-	-	4-6	4-6	800	0	2
Malin Head	1026·6	0	S'W	1	bc	40	85	7	4	-	-	4-6	4-6	4000	0	1
Aldergrove	1027·7	-2	-	0	z0	39	85	6	5	-	-	10	10	4000	1	*
Birr Castle	1027·4	+2	SSE	1	b	25	97	8	-	-	-	0	0	-	3	*
Valentia Obsy.	1025·0	-2	E	3	c	45	85	8	5	-	-	10	10	2500	1	2
Roches Point	1025·3	-6	E'S	3	ir	46	92	7	6	2	-	7-8	10	800	1	3

PAST 24 HOURS.

Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 20th Hrs. (36)
London (Kew)	42	38	35	2	0·6	0·0
Croydon	41	36	34	1	1	0·0
S. Farnborough	41	36	35	0·4	0·6	0·0
Boscombe Down	40	36	33	Tr	Tr	0·0
Calshot (Sthmtn.)	43	38	38	-	Tr	0·0
Lympne	42	32	28	0·3	0·3	0·6
Manston	45	35	30	1	Tr	0·8
Shoeburyness				2		
Felixstowe	43	39	35	1	-	0·0
Gorleston	44	39	38	1	1	*
Mildenhall	43	34	33	0·2	-	0·0
Cranwell	42	35	33	Tr	Tr	0·7
Birmingham	41	36	34	0·3		0·4
Upper Heyford	41	33	30	0·1	Tr	*
Ross-on-Wye	43	36	35	0·1	0·1	0·4
Hartland Point	41	39	37	0·4	-	0·0
Bristol	41	37	35	Tr	Tr	0·0
Portland Bill	43	41	*	2	0·3	*
Plymouth	43	42	40	0·3	1	0·0
The Lizard	46	42	*	Tr	-	0·0
Scilly (St. Mary's)	46	45	*	-	-	1·0
Guernsey	48	39	35	Tr	-	0·0
Pembroke	44	38	*	-	-	0·0
Holyhead	44	38	37	-	-	0·9
Chester (Sealand)	41	35	34	-	-	0·0
Manchester	42	39	33	-	-	0·0
Spurn Head	42	38	*	0·6	-	0·2
Catterick	40	33	30	Tr	-	0·0
Tynemouth	43	37	34	Tr	-	*
St. Abbs Head	42	33	*	1	-	*
Leuchars	37	31	25	-	-	0·0
Renfrew (Abbots I.)	39	28	26	-	Tr	0·0
Eskdalemuir	(39)	29	26	-	-	0·3
Point of Ayre	44	38	*	Tr	-	0·0
Tiree	42	40	38	-	-	0·0
Stornoway	43	42	*	-	2	0·0
Dalwhinnie	32	29	24	-	-	0·0
Aberdeen	36	33	26	-	-	0·0
Wick	38	36	*	-	Tr	*
Lerwick	37	36	*	-	0·6	0·0
Blacksod Point	45	37	*	-	-	*
Malin Head	44	38	*	0·1	-	0·0
Aldergrove		38	35		-	0·0
Birr Castle	42	24	22	-	-	3·3
Valentia Obsy.	44	42	39	-	Tr	5·4
Roches Point	46	44	*	0·1	2	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Temperature Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h. (To-day)
Kew	18	cmidcm	cdcmd	cdrcm	42	38	35	2	0·6	0·0	*	*	
Croydon	217	cmcfof	ofmcdd	ddrrcm	41	36	34	1	1	0·0	*	*	
Greenwich (Royal Observatory)	149	cm	cmdd	ddcbxm	41	34	29	1	1	0·0	94	69	5
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	43	40	34	0·5			89	55	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*	42	34	32	Tr	0·3	0·0	91	54	*
Camden Square	110	or	o	*	41	36	28	0·5	-	*	*	66	*
Kensington	80	od0od	cm	*	42	37	33	0·2	0·4		91	62	*
Hampstead Observatory	450	od	od	bc	40	35	33	0·4	Tr		*	77	*

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 21st.

South Kensington.			
Max.	Time.	Min.	Time.

Kew Observatory.			
Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 20th December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 21st December: Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours: Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1023·9	N	3	z0	34	1025·9	NNE	3	o	32	39	32	-	-
Brussels														
Berlin														
Zürich														
Rome	1008·5	NE'E	2	c	48						*	*	2	

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22.—Code for surface visibility.

		Objects not visible at
0	Dense fog	55 yards.
1	Thick fog	220 ,,
2	Fog	550 ,,
3	Moderate fog	1,100 ,,
4	Mist or haze	1½ miles.
5	Poor visibility	2½ ,,
6	Moderate ,,	6¼ ,,
7	Good ,,	12½ ,,
8	Very good ,,	31 ,,
9	Excellent ,,	beyond 31m.

COLUMN 30.—Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Friday 22nd December 1939.

No 28,519

OBSERVATIONS at 13h. G.M.T 21st December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1027.4	-10	ENE	2	z₀	38	50	5	5	-	6	4-6	9	1500
	Croydon ...	1027.5	-16	ENE	2	bc	37	65	6	-	-	2	0	4-6	-
	S. Farnborough	1027.5	-18	NE/E	2	z₀	39	45	6	-	-	1	0	4-6	-
	Boscombe Down	1027.0	-20	NE/E	2	bc	39	65	7	1	-	1	1	2-3	4000
	Calshot (Soton.)	1026.4	-14	NE/E	3	bc	40	45	7	-	-	1	0	2-3	-
	Lympne ...	1027.1	-18	E/N	3	bc	38	75	6	2	-	1	Tr	4-6	4000
	Manston ...	1027.7	-14	ESE	2	z₀	35	65	6	5	-	2	4-6	9	4000
2	Shoeburyness ...	1027.7	-20	ESE	1	bc	37	65	8	-	4	-	0	4-6	-
	Felixstowe ...	1027.9	-14	SE	2	c	40	65	7	-	4	-	0	9	-
	Gorleston ...	1026.9	-12	SE/S	3	c	40	75	7	5	7	-	4-6	7-8	2500
	Mildenhall ...	1023.1	-18	—	0	z₀	40	75	6	5	7	6	4-6	9+	1500
	Cranwell ...	1027.9	-16	S/W	1	z₀	38	75	6	5	-	-	10	10	4000
3	Birmingham	1028.2	-8	SW	1	z₀	38	75	5	5	-	-	9+	9+	4000
	Upper Heyford	1027.8	-18	ESE	1	z₀	39	75	6	5	-	8	9	9+	4000
4	Ross-on-Wye ...	1027.6	-12	ENE	2	z₀	39	85	6	5	-	-	10	10	2500
5	Hartland Point	1026.2	-4	E	2	bc	40	65	8	5	-	1	2-3	2-3	4000
	Bristol ...	1027.5	-6	SE	3	bc	41	65	6	1	4	-	2-3	4-6	2500
	Portland Bill ...	1025.9	-12	E	4	bc	41	55	8	1	-	-	4-6	4-6	4000
	Plymouth ...	1025.9	-10	E/N	3	c	42	65	8	5	-	-	9	9	2500
	The Lizard ...	1024.7	-4	E/S	4	c	44	65	8	8	2	-	7-8	9+	1500
	Scilly (St. Mary's)	1024.1	-4	E	5	c	45	75	7	8	4	-	7-8	9	1500
	Guernsey ...	1024.1	-14	NE	1	c	41	75	8	8	2	-	7-8	7-8	2500
6	Pembroke ...	1027.0	0	SE	4	c	42	92	7	5	-	-	9+	9+	2500
7	Holyhead ...	1026.9	-10	SSW	3	c	44	85	6	5	-	-	10	10	4000
	Chester (Sealand)	1027.8	-8	SSE	1	m	38	92	4	5	-	-	10	10	4000
8	Manchester ...	1028.1	-10	S	1	z₀	38	85	5	5	2	-	7-8	10	2500
10	Spurn Head ...	1028.0	-8	SSW	2	c	40	85	6	5	-	-	10	10	1500
	Catterick ...	1027.3	-14	WSW	2	c	40	75	6	5	-	1	4-6	7-8	4000
	Tynemouth ...	1026.3	-8	SW	2	cf	39	75	3	5	-	-	9+	9+	2500
11	St. Abbs Head	1023.9	-10	W	4	c	39	85	7	5	6	2	4-6	7-8	2500
	Leuchars ...	1022.8	-20	WSW	5	z₀	40	85	5	5	7	-	4-6	10	4000
12	Renfrew (Abbots I.)	1025.7	-14	WSW	3	z₀	42	85	6	5	7	-	9	9+	4000
	Eskdalemuir ...	1026.2	-12	SSW	2	c	35	85	6	5	-	-	10	10	450
	Point of Ayre ...	1026.9	-6	SW/W	1	c	43	85	8	5	-	-	9+	9+	2500
13A	Tiree														
13B	Stornoway ...	1019.4	-8	WSW	6	r₀	47	92	8	5	2	-	7-8	10	1500
15	Dalwhinnie ...	1022.5	-10	SW	4	c	40	85	7	5	1	-	7-8	10	2500
	Aberdeen ...	1019.8	-16	W/S	4	c/r	44	75	6	6	2	-	4-6	10	1500
	Wick ...	1016.2	-20	SSW	4	pr	45	92	8	5	7	7	7-8	10	1500
16	Lerwick...	1009.1	+10	WNW	6	r₀r₀	46	97	6	6	2	-	7-8	10	800
17	Blacksod Point...	1026.8	-2	SE	1	c	43	92	7	-	7	-	0	7-8	-
18	Malin Head ...	1026.1	-4	SSW	1	bc	44	75	7	5	-	4	2-3	4-6	4000
	Aldergrove ...	1027.4	-2	—	0	z₀	43	75	6	5	1	-	7-8	9+	4000
19	Birr Castle ...	1027.3	-6	SSE	1	c	35	75	7	4	-	-	7-8	7-8	2500
20	Valentia Obsy. †	1025.4	-2	E/N	2	c	48	75	8	5	-	-	9+	9+	4000
	Roches Point ...	1025.7	-8	E/S	3	ir	45	92	6	6	-	9	9	9	800

OBSERVATIONS at 18h. G.M.T 21st December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1026.4	-2	NE	2	m	35	75	4	-	-	2	0	4-6	-	1	*
Croydon	1026.7	-2	—	0	bcf+	30	92	3	-	-	1	0	2-3	-	1	*
S. Farnborough	1026.5	-2	NE/N	1	bcf	33	75	3	-	-	1	0	4-6	-	1	*
Boscombe Down	1026.1	-4	NE/N	3	z₀	33	75	5	-	-	1	0	1	-	1	*
Calshot (Soton.)	1025.9	0	NE	2	z₀	35	65	5	-	-	6	0	7-8	-	1	2
Lympne	1026.4	-2	NE/E	2	z₀	27	85	6	2	-	-	Tr	Tr	4000	3	§3
Manston	1026.1	-4	E/S	1	z₀	31	85	6	5	-	-	2-3	2-3	4000	0	*
Shoeburyness	1026.7	-4	NE	1	b	31	85	8	-	-	-	0	0	-	5	*
Felixstowe	1026.4	-6	ENE	2	z₀	32	75	6	-	-	-	0	0	-	1	2
Gorleston	1026.6	-10	—	0	b	33	85	6	-	-	-	0	0	-	0	2
Mildenhall	1027.0	-6	NE/E	1	bcfg	29	97	4	5	-	8	Tr	2-3	4000	1	*
Cranwell	1026.8	-6	WSW	1	z₀	37	92	5	5	-	-	10	10	2500	0	*
Birmingham	1027.8	-6	WSW	1	m	37	75	4	5	-	-	10	10	4000	1	*
Upper Heyford	1027.2	-2	NE	1	z₀	33	92	6	4	-	-	4-6	4-6	4000	0	*
Ross-on-Wye	1026.7	-8	NE/E	1	m	37	92	4	5	-	-	10	10	2500	1	*
Hartland Point	1025.4	0	NE	4	bc	39	65	8	5	-	-	2-3	2-3	2500	0	2
Bristol	1026.9	-2	—	0	bf+	34	75	3	-	-	-	0	0	-	1	*
Portland Bill	1024.7	-2	ENE	4	m	38	75	4	-	-	-	0	0	-	1	3
Plymouth	1025.3	+4	NE	2	z₀	38	75	6	-	-	-	0	0	-	1	1
The Lizard	1024.3	0	E/N	5	bc	40	75	8	8	-	-	2-3	2-3	2500	1	3
Scilly (St. Mary's)	1023.6	0	NE/E	4	bc	42	85	8	8	-	-	2-3	2-3	1500	1	3
Guernsey																
Pembroke	1026.3	-2	E/S	3	c	41	85	7	5	-	-	9+	9+	2500	1	2
Holyhead	1026.0	-2	SW/S	2	c	44	65	6	5	-	-	10	10	2500	1	1
Chester (Sealand)	1026.7	-2	—	0	m	37	92	4	5	-	-	10	10	4000	1	*
Manchester	1027.1	-4	S/E	1	of	37	92	3	5	-	-	10	10	4000	0	*
Spurn Head	1026.4	-6	SW/S	2	c	38	85	6	5	-	-	9+	9+	2500	0	1
Catterick	1025.6	-4	S/W	1	z₀	35	85	6	5	-	8	1	4-6	4000	1	*
Tynemouth	1024.8	-8	W	3	bc/f	38	65	5	5	-	-	4-6	4-6	1500	1	1
St. Abbs Head	1021.9	-4	SW/W	5	c	43	65	7	5	6	1	4-6	7-8	2500	0	3
Leuchars	1021.7	-2	WSW	4	c/r	41	85	6	5	2	-	7-8	9+	4000	1	*
Renfrew (Abbots I.)	1024.0	-6	WSW	3	z₀	43	85	6	5	3	-	9	9+	2500	1	*
Eskdalemuir	1024.8	-2	SW/W	3	c	37	92	5	5	-	-	9+	9+	450	1	*
Point of Ayre	1025.9	0	WSW	1	bc	36	97	7	-	3	-	0	2-3	-	0	1
Tiree	1023.1	0	W/N	4	c	47	85	8	5	-	-	7-8	7-8	4000	0	3
Stornoway	1019.4	+2	WSW	3	c/pr	48	92	6	5	7	-	4-6	9+	2500	1	3
Dalwhinnie	1022.7	0	SW	3	c	41	85	7	5	-	-	10	10	2500	0	*
Aberdeen	1018.8	-2	W	2	c/r	46	75	6	-	2	-	9+	9+	4000	1	1
Wick	1015.8	0	W	4	d₀d	47	97	7	5	2	-	9	10	1500	1	2
Lerwick	1014.0	+18	N	5	c	39	75	7	8	7	-	7-8	9+	1500	9	*
Blacksod Point	1026.4	0	—	0	bc	40	92	7	-	3	-	0	4-6	-	0	1
Malin Head	1025.3	+4	SW	2	c	41	75	7	5	-	-	9	9	4000	0	2
Aldergrove	1026.7	+2	SSW	1	z₀	36	97	5	-	-	-	0	0	-	1	*
Birr Castle	1026.9	+2	ENE	1	c	32	97	7	4	-	-	7-8	7-8	2500	3	*
Valentia Obsy. †	1025.6	+6	—	0	c	45	85	7	5	-	-	10	10	2500	1	1
Roches Point	1025.9	+4	E	3	c/r	43	97	7	6	-	-	9+	9+	800	1	3

PAST 24 HOURS.

Stations	Weather 7h.—18h. 21st (37)	Weather 13h.—18h. 21st (38)	Weather 18h. 21st to 1h. 22nd (39)	Weather 1h.—7h. 22nd (40)
London (Kew)	cm₀cz₀y	cbczx	bcbfe	oFfe
Croydon	cbcmbcz	bcz₀m₀m	bwffx	bfx
S. Farnborough	cfbfz₀	bcyzf		bfx
Boscombe Down	bmcidcbm	bcm₀bm		bmx
Calshot (Soton.)	cm₀bm₀b	bcm₀	tcm₀bmx	bmbff
Lympne	bxbc	bcm₀bxm	bm₀x	bm₀x
Manston	cz₀	cz₀cm₀	cm₀x	bcm₀fgx
Shoeburyness	bc	bcx		bx
Felixstowe	c	cbm₀x	bmbm	bmbm₀x
Gorleston	c	mm₀	bcz₀x	bz₀x
Mildenhall	cm₀	cm₀bcm₀	bmifmx	bmfmx
Cranwell	cm₀	cm₀	cm₀bfx	bfx
Birmingham	omcz	cz	cfmb	bm₀x
Upper Heyford	cm₀	cm₀	bcm₀bm₀	bmfm₀
Ross-on-Wye	om₀cm₀	cm₀ocm₀	cmbf	fxF
Hartland Point	bc	bc	b	b
Bristol	cm₀bc	bcz₀bf	bfmxm₀x	bmxF
Portland Bill	cbc	bc		bbc
Plymouth	cbcc	c,bz₀	bz₀	bz₀
The Lizard	c	cbc	bbc	bc
Scilly (St. Mary's)	c	cbc	bcb	bz₀
Guernsey	c		c	c
Pembroke	c	c	c	c
Holyhead	cm₀c	cm₀c	cm₀c	cm₀c
Chester (Sealand)	cmm₀m	cm	cmfbfx	bFfbcmx
Manchester	czz₀m₀	cm₀mff	cffbcfw	bcfwbfox
Spurn Head	c	c	cm₀f	bcf
Catterick	cm₀bcm₀	cm₀bcm	bcbxm₀	bxm₀
Tynemouth	ocff	cffbc	bc	bcc
St. Abbs Head	c	bcc	c	bc
Leuchars	cxccm₀	cm₀r₀cm	r₀r₀m₀c	
Renfrew (Abbots I.)	cffxmm	cm₀	cm₀	cm₀ir₀bc
Eskdalemuir	cxc	cm₀	pr₀c	c
Point of Ayre	c	cbc	c	c
Tiree		c	c	c
Stornoway	cir	cpr₀	cpr₀d₀	cbcpr
Dalwhinnie	c	cid₀		cid
Aberdeen	ffcr₀	cr₀r₀	cz₀	z₀c
Wick	cpr₀	r₀r₀d₀	cddm₀	rrr₀r
Lerwick	crr₀r₀	cr₀ir₀	c	cs₀s₀
Blacksod Point	c	cbc	b	b
Malin Head	c	c	bccbc	bc
Aldergrove	cm₀	cm₀bm₀	bmbcm₀m	cm₀bcm₀
Birr Castle	bbcc	c	bff	cof
Valentia Obsy. †	c	c	cir₀m₀	m₀cwbcbx
Roches Point	ir₀rrir	r₀r₀c	ir₀ir	c

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s₀, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s₀/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r₀, slight rain. rr, continuous rain.
<, less than (for cloud height). ⚑gale.
⊕ Solar halo. Ⓘ lunar halo. ⌂Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

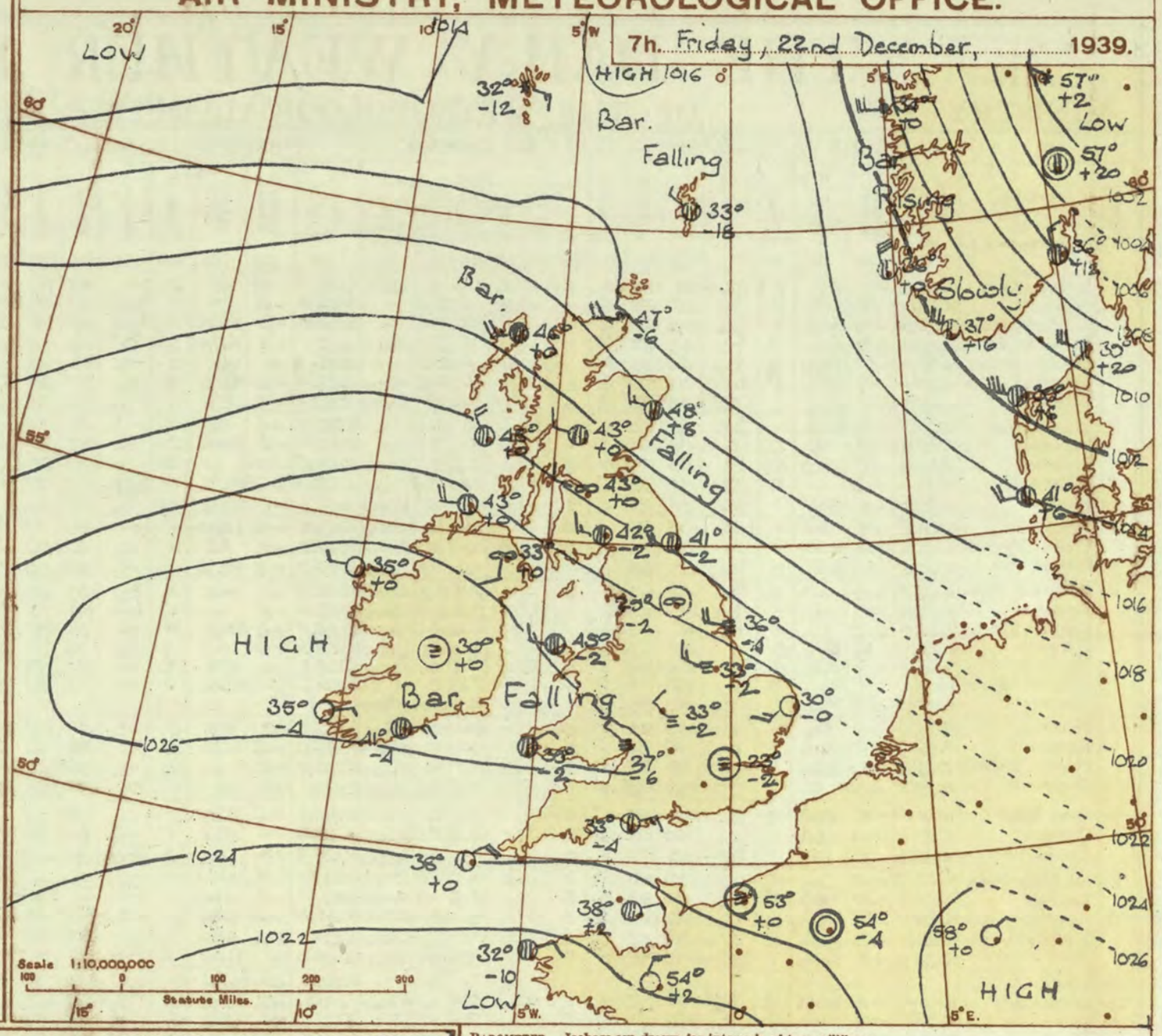
Cloud form abbreviations:— Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.



BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 22nd December, 1939
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ... 5 S.W. England 6 South Wales ...	Light variable winds, fair but fog tending to persist locally today becoming more general tonight, persisting tomorrow; rather cold with sharp frost at night, persisting locally with fog.
7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland	Wind westerly light freshening tomorrow; fair today; local fog tonight and early tomorrow; cloud increasing with chance of rain tomorrow rather cold, frost locally at night.
12 S.W. Scotland & Isle of Man. 13 A. W. Scotld. B.N.W.Scotland. 14 Mid Scotland 15 N. E. Scotland	Wind backing southwest increasing slowly to fresh to strong on the coast; fair today; cloudy, occasional rain spreading from west tomorrow; rather mild.
16 Orkneys and Shetlands	Wind becoming southwest, increasing strong perhaps gale; cloudy; occasional snow or sleet today, rain tomorrow; cold becoming mild.
17 N. W. Ireland 18 N. E. Ireland	As 7 - 9.
19 S. E. Ireland 20 S. W. Ireland	As 1 - 6.

GENERAL INFERENCE.

A belt of high pressure extends from westward of Ireland across to the Balkans. A depression west of Iceland is expected to deepen and move east and then southeast. Weather will be fair apart from rather persistent fog in the southern half of the country with sharp night frost. Conditions will be fair and mild in the North at first but will deteriorate with rain and strong winds tomorrow.

FURTHER OUTLOOK.

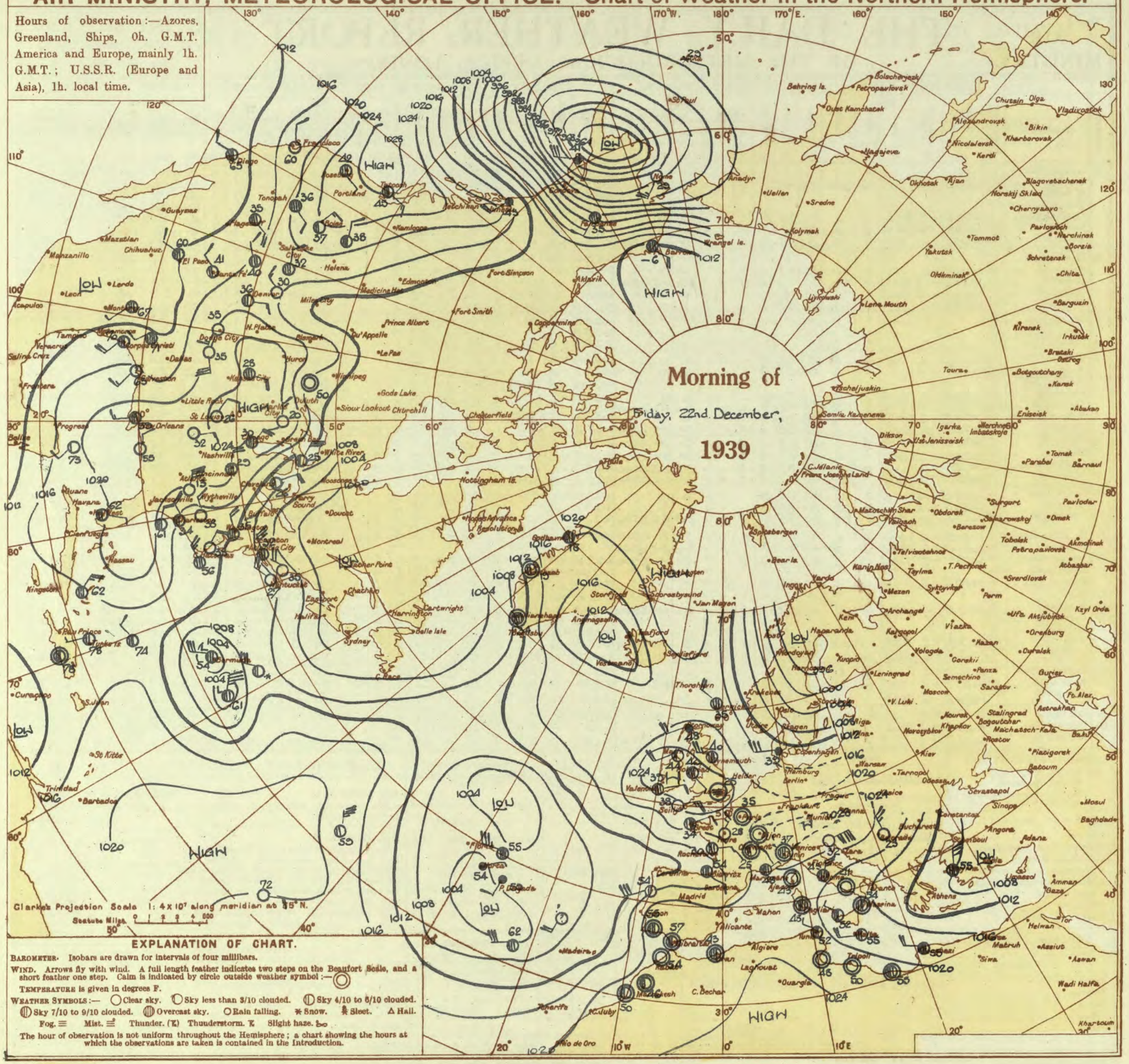
Local fog in the South; unsettled and changeable in the North.

Forecasts issued at 1100 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Friday, 22nd December 1939.
No. 28,519

OBSERVATIONS at 1 hr. G.M.T. 22nd December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1025·8	-10	-	0	bf-	25	97	3	-	-	-	0	0	-
	S. Farnborough	226														
	Boscombe Down	417														
	Calshot (Sthmtn.)	8	1025·6	-2	NNE	2	m	30	85	4	-	-	-	0	0	-
	Lympne ...	346	1025·5	-10	NE'E	2	z0	22	97	5	-	-	-	0	0	-
	Manston ...	154	1025·2	-10	E'N	1	z0	32	85	6	5	7	-	Tr	2-3	2500
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1025·1	-10	NE	1	m	29	97	4	-	-	-	0	0	-
	Gorleston ...	5	1025·2	-12	SW'W	2	bc	32	75	5	5	-	-	2-3	2-3	2500
	Mildenhall ...	19	1025·4	-14	SW'S	1	m/f	23	92	4	-	-	1	0	Tr	-
	Cranwell ...	240	1025·4	-6	W'N	2	bf	32	97	2	-	-	-	0	0	-
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408														
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1025·0	-6	NE	3	b	37	85	7	-	-	-	0	0	-
	Bristol ...	209	1026·7	-4	-	0	b	30	97	6	-	-	-	0	0	-
	Portland Bill ...	32														
	Plymouth ...	82	1025·0	-2	ENE	2	z0	35	75	6	-	-	-	0	0	-
	The Lizard ...	240	1024·1	-4	E'N	5	bc	39	75	7	8	6	-	4-6	4-6	2500
	Scilly (St.Mary's)	163	1023·9	-2	ENE	5	b	38	75	7	-	-	-	0	0	-
	Guernsey ...	175	1023·2	0	ENE	1	c	38	85	6	8	-	-	9+	9+	2500
6	Pembroke ...	142	1026·3	-4	E'N	2	c	38	85	6	5	-	-	9+	9+	2500
7	Holyhead ...	26	1025·9	-2	SE	1	c	40	97	6	5	-	-	9+	9+	2500
	Chester(Sealand)	16	1025·9	-6	-	0	bcf+	33	97	2	5	-	-	2-3	2-3	4000
8	Manchester ...	70	1025·8	-10	S'E	1	bcf	33	97	2	3	4	-	4-6	4-6	2500
10	Spurn Head ...	29	1024·5	-14	W'S	3	cf	35	92	3	-	-	7	0	10	-
	Catterick ...	175	1023·9	-10	-	0	z0	34	85	5	-	-	1	0	Tr	-
	Tynemouth ...	108	1017·2	-10	W	5	bc	40	75	6	2	3	-	2-3	4-6	2500
11	St. Abbs Head	280	1020·3	-6	WNW	4	c	47	75	7	8	6	-	7-8	9	2500
	Leuchars ...	36	1021·0	-6	WSW	3	c	44	85	8	7	5	-	7-8	9+	2500
12	Renfrew (Abbots I.)	19	1023·1	-6	WSW	3	z0	45	85	6	5	-	-	9+	9+	2500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	1025·2	-2	NW'W	4	c	44	85	8	-	3	-	0	9+	-
13A	Tiree ...	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1019·9	0	WSW	4	d	48	92	7	5	1	-	4-6	10	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1017·8	+2	ESE	1	dd	45	97	5	5	2	-	9	10	800
16	Lerwick ...	156	1016·8	+2	NW	4	c	35	85	7	5	2	-	7-8	10	1500
17	Blacksod Point	18	1026·9	+2	W	2	b	36	97	7	-	-	-	0	0	-
18	Malin Head ...	84	1025·2	+2	SW	4	bc	44	92	8	-	-	8	0	4-6	-
	Aldergrove ...	268	1026·2	-2	SW'S	1	z0	36	92	6	5	-	-	9+	9+	4000
19	Birr Castle ...	173	1027·4	+2	-	0	bf	28	97	3	-	-	-	0	0	-
20	Valentia Obsy.	30	1026·4	+2	ENE	1	cfs	39	97	6	-	3	-	0	7-8	-
	Roches Point	22	1026·7	+2	E	3	ir	43	97	7	6	-	-	9	9	1500

OBSERVATIONS at 7 hr. G.M.T. 22nd December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
1	London (Kew)	1025·7	-2	SSW	2	F	27	92	1	-	-	-	10	10	<150	3	*
	Croydon	1025·9	-2	-	0	bf	23	97	2	-	-	-	0	0	-	1	*
	S. Farnborough	1026·2	0	-	0	bF	18	92	3	-	-	-	0	0	-	3	*
	Boscombe Down	1026·1	0	N	1	m	24	97	4	-	-	-	0	0	-	1	*
	Calshot (Sthmtn.)	1025·4	-2	N	2	bf-	29	85	2	-	-	-	0	0	-	1	1
	Lympne	1025·5	+2	NNE	2	z0	28	92	5	2	-	-	Tr	Tr	4000	3	§1
	Manston	1025·2	+2	NW	1	bcf	28	92	5	5	3	1	2-3	2-3	2500	3	*
2	Shoeburyness	1025·0	-6	W	1	m	26	92	4	-	-	-	0	0	-	3	*
	Felixstowe	1024·9	0	N	1	z0	29	92	5	-	-	-	0	0	-	3	2
	Gorleston	1024·6	0	SW'W	3	b	30	75	6	-	-	-	0	0	-	3	2
	Mildenhall	1025·1	0	SW'S	2	m	27	92	4	-	-	-	0	0	-	3	*
	Cranwell	1024·4	-2	WNW	3	bf	33	92	2	-	-	-	0	0	-	3	*
3	Birmingham	1025·5	-2	NW	2	m	33	85	4	-	-	-	0	0	-	1	*
	Upper Heyford	1025·8	-2	-	0	m/f	27	97	4	-	-	-	0	0	-	1	*
4	Ross-on-Wye	1025·8	-6	NW	1	F	27	97	1	-	-	-	10	10	<150	1	*
5	Hartland Point	1024·8	-4	E	3	b	35	75	6	-	-	-	0	0	-	0	2
	Bristol	1026·2	-4	-	0	bF+	22	97	1	-	-	-	0	0	-	1	*
	Portland Bill	1024·6	-4	ENE	3	bc	33	92	7	5	-	-	2-3	2-3	2500	1	3
	Plymouth	1024·9	-2	ENE	1	z0	34	75	6	-	-	-	0	0	-	3	1
	The Lizard	1024·0	-2	ENE	5	bc	38	85	7	8	-	-	2-3	2-3	2500	0	3
	Scilly (St.Mary's)	1024·1	0	NE'E	4	b	38	85	6	5	-	-	Tr	Tr	2500	1	3
	Guernsey	1023·2	+2	ENE	1	c	38	85	6	8	-	-	9	9	1500	0	2
6	Pembroke	1026·0	-2	NE'E	1	c	39	85	7	5	-	-	9	9	2500	1	1
7	Holyhead	1025·4	-2	W'N	3	c	45	75	7	5	-	-	9	9	4000	1	1
	Chester(Sealand)	1025·2	-6	NW	1	m	33	97	4	5	-	-	7-8	7-8	2500	3	*
8	Manchester	1025·3	-4	SSE	1	oF-	32	97	0	5	-	-	10	10	2500	1	*
10	Spurn Head	1023·3	-4	W'N	4	bcf	36	92	3	-	-	8	0	4-6	-	5	3
	Catterick	1023·2	-2	-	0	z0	29	92	6	-	-	8	0	2-3	-	3	*
	Tynemouth	1022·7	-2	W	4	c	41	85	6	2	-	-	7-8	7-8	2500	1	1
11	St. Abbs Head	1020·4	+4	WNW	5	bc	47	75	8	4	6	1	4-6	4-6	2500	0	3
	Leuchars																*
12	Renfrew (Abbots I.)	1022·9	0	WSW	2	z0	43	85	6	5	-	-	2-3	2-3	2500	1	*
	Eskdalemuir	1023·0	-2	W'N	3	c	42	92	7	5	-	-	9	9	800	1	*
	Point of Ayre	1024·6	0	NW'N	4	c	46	85	8	5	-	-	9+	9+	2500	0	3
13A	Tiree	1022·8	0	NW'N	4	c	48	85	8	5	-	-	7-8	7-8	2500	0	3
13B	Stornoway	1019·9	0	WSW	5	bc	46	85	7	5	-	-	2-3	2-3	2500	1	2
15	Dalwhinnie	1021·6	0	WSW	2	c	43	85	6	4	2	-	4-6	10	2500	0	*
	Aberdeen	1019·0	+8	WNW	3	c	48	75	7	5	7	-	2-3	9+	4000	1	1
	Wick	1015·9	-6	W	4	d0d0	47	97	6	5	7	-	7-8	9	1500	1	2
16	Lerwick	1014·8	-18	NW	1	c	33	97	7	8	7	-	7-8	10	1500	4	*
17	Blacksod Point	1026·4	0	W	1	b	35	97	8	-	-	-	0	0	-	0	1
18	Malin Head	1025·0	0	W	4	bc	43	92	7	8	3	-	4-6	4-6	5700	0	2
	Aldergrove	1026·0	0	SW	2	z0	33	92	6	5	3	-	Tr	2-3	2500	1	*
19	Birr Castle	1027·5	0	-	0	of	30	97	3	5	-	-	10	10	2500	3	*
20	Valentia Obsy.	1026·1	-4	E'N	1	b	35	97	8	-	-	-	0	0	-	1	2
	Roches Point	1026·2	-4	E'N	3	c	41	97	7	5	-	-	9+	9+	1500	1	3

PAST 24 HOURS.

District	Stations	Temperature Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 21st Hrs. (36)
1	London (Kew)	38	27	14	-	Tr	3·0
	Croydon	37	23	14	-	Tr	5·9
	S. Farnborough	40	17	14	-	-	5·0
	Boscombe Down	40	24	20	Tr	Tr	4·5
	Calshot (Sthmtn.)	41	27	23	-	-	7·1
	Lympne	34	21	16	-	-	5·5
	Manston	36	27	13	-	-	5·8
2	Shoeburyness	42	25	24	-	-	6·4
	Felixstowe	41	27	21	-	-	4·6
	Gorleston	42	29	29	-	-	*
	Mildenhall	41	23	18	-	Tr	0·3
	Cranwell	38	30	27	-	-	0·0
3	Birmingham	38	32	19	*	-	0·0
	Upper Heyford	41	25	14	-	-	*
4	Ross-on-Wye	39	26	22	-	-	0·0
5	Hartland Point	40	34	32	-	-	6·7
	Bristol	42	22	14	-	-	4·4
	Portland Bill	45	31	*	-	-	*
	Plymouth	44	34	26	-	-	1·9
	The Lizard	45	37	*	-	-	0·0
	Scilly (St.Mary's)	47	37	*	-	-	0·6
	Guernsey	42	36	32		-	1·0
6	Pembroke	43	37	*	-	-	0·0
7	Holyhead	44	39	32	-	-	0·0
	Chester(Sealand)	38	29	25	-	-	0·0
8	Manchester	38	27	23	-	-	0·0
10	Spurn Head	40	34	*	-	-	0·0
	Catterick	41	28	20	-	-	2·1
	Tynemouth	41	37	31	-	-	*
11	St. Abbs Head	43	42	*	-	-	*
	Leuchars	42			Tr		
12	Renfrew (Abbots I.)	43	42	36	-	Tr	0·0
	Eskdalemuir	37	35	33	-	Tr	0·0
	Point of Ayre	44	34	*	-	-	0·0
13A	Tiree	48	45	42	-	-	0·0
13B	Stornoway	48	46	*	1	0·4	0·0
15	Dalwhinnie	41	40	35	-	-	0·0
	Aberdeen	46	45	38	0·2	-	0·0
	Wick	48	44	*	2	11	*
16	Lerwick	49	33	*	1	1	0·0
17	Blacksod Point	43	34	*	-	-	*
18	Malin Head	45	42	*	-	-	3·3
	Aldergrove	43	32	20	-	-	0·0
19	Birr Castle	37	25	24	-	-	1·6
20	Valentia Obsy.	48	34	31	-	0·6	0·0
	Roches Point	46	40	*	5	1	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
Kew	18	cmczy	cbczx	bcboFFx	38	27	14	-	Tr	3·0	*	*	0
Croydon	217	cbcmbcz	bczmm	bwFFx	37	23	14	-	Tr	5·9	*	*	
Greenwich (Royal Observatory)	149	bm0	bm0	bxf	37	21	15	-	Tr	3·9	77	94	1
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	40	25	25	-	-		64	60	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*	39	24	15	-	-	3·0	63		*
Camden Square	110	bc	b	*	39	25	20	-	-	*	*	96	*
Kensington	80	bc	bcz	*	39	25	18	-	-		70	91	*
Hampstead Observatory	450	bc	bc	bxm	38	27	22	-	-		*	91	*

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 22nd

	Max.	Time.	Min.	Time.
South Kensington				
Kew Observatory	1·2	21h. 21st.	<0·1	8h. 21st.

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 21st December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 22nd December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1024·7	-	0	b	28	1024·1	-	0	b	25	34	23	-	-
Brussels														
Berlin														
Zürich														
Rome	1016·5	NNE	6	c	32						*	*	-	

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 —Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6¼ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 —Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Saturday 23rd December 1939.

No. 28520

OBSERVATIONS at 13h. G.M.T. 22nd December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1025·2	-16	-	0	zo	33	92	2	-	-	-	0	1	-
	Croydon	1025·3	-14	-	0	f	36	85	2	-	-	-	0	0	-
	S. Farnborough	1025·4	-16	-	0	zo	37	95	5	-	-	·	0	0	-
	Boscombe Down	1025·4	-14	N	2	zo	33	85	5	-	-	-	0	0	-
	Calshot (Soton.)	1025·0	-10	NE'N	1	zo	38	65	5	-	3	-	0	Tr	-
	Lympne ...	1025·0	-14	NE	2	bc	37	75	6	-	-	1	0	2-3	-
	Manston ...	1025·0	-14	NW'W	1	f	38	75	3	-	-	1	0	4-6	-
2	Shoeburyness ...	1025·4	+10	W	1	b	39	75	6	-	-	1	0	1	-
	Felixstowe ...	1024·7	-10	W	1	m	37	75	4	-	-	8	0	2-3	-
	Gorleston ...	1024·2	-10	WSW	2	c	36	85	6	5	-	-	7-8	7-8	2500
	Mildenhall ...	1024·7	-10	SW	1	f	34	85	3	-	-	1	0	Tr	-
	Cranwell ...	1024·2	-16	W	3	m	39	85	4	-	7	2	0	4-6	-
3	Birmingham	1025·3	-2	NW	2	f	40	85	3	-	-	-	0	0	-
	Upper Heyford	1025·6	-8	-	0	m	36	65	4	-	7	8	0	2-3	-
4	Ross-on-Wye ...	1025·2	-10	-	0	m	35	97	4	5	-	-	4-6	4-6	2500
5	Hartland Point	1025·4	-4	ENE	E	bc	38	75	7	·	5	-	2-3	2-3	4000
	Bristol	1026·1	-12	-	0	f	31	97	3	5	-	-	7-8	7-8	1500
	Portland Bill ...	1025·0	+16	ENE	3	bc	39	92	7	5	-	-	2-3	2-3	2500
	Plymouth ...	1024·9	-8	ENE	2	zo	40	65	8	-	-	-	0	0	-
	The Lizard ...	1023·8	+2	E'N	5	bc	42	75	8	4	-	-	0	2-3	2500
	Scilly (St. Mary's)	1025·0	+2	ENE	4	b	42	65	6	-	-	-	0	0	-
	Guernsey ...	1023·1	-6	ENE	1	bc	40	85	6	2	1	-	4-6	4-6	2500
6	Pembroke ...	1025·9	-2	-	0	b	44	85	6	-	-	-	0	0	-
7	Holyhead ...	1025·5	-6	NW'W	3	c	46	85	7	5	-	-	9+	9+	4000
	Chester (Sealand)	1025·3	-6	-	0	f	41	85	3	5	-	-	9+	9+	4000
8	Manchester ...	1025·3	-6	-	0	f	36	97	2	5	-	-	10	10	2500
10	Spurn Head ...	1023·5	-2	W	3	f	41	85	3	-	-	6	0	4-6	-
	Catterick ...	1023·2	-10	-	0	m	38	85	4	-	-	2	0	4-6	-
	Tynemouth ...	1022·6	-8	W	3	bc	46	75	6	2	3	-	2-3	4-6	2500
11	St. Abbs Head	1020·4	-4	WNW	4	bc	46	75	8	7	6	1	4-6	4-6	2500
	Leuchars ...	1021·2	-4	WSW	2	c	49	75	8	5	7	-	2-3	7-8	4000
12	Renfrew (Abbots I.)	1023·1	-8	WSW	3	c	49	75	8	7	4	6	4-6	7-8	1500
	Eskdalemuir ...	1022·8	-10	W	2	bc	44	75	7	5	-	1	4-6	4-6	1500
	Point of Ayre ...	1024·9	-2	WNW	3	bc	46	92	7	5	-	-	4-6	4-6	2500
13A	Tiree	1023·2	0	WNW	3	c	48	85	8	8	3	-	4-6	7-8	2500
13B	Stornoway ...	1020·8	0	WSW	4	ir	45	92	8	5	7	-	4-6	9	2500
15	Dalwhinnie ...	1021·9	-4	WSW	3	iro	42	85	7	4	7	-	4-6	10	2500
	Aberdeen ...	1019·9	-2	W	2	bc	48	75	8	5	-	6	4-6	4-6	4000
	Wick	1017·9	0	SW	3	c	45	85	8	8	7	1	4-6	7-8	1500
16	Lerwick... ...	1013·3	-18	S	3	c/d	39	97	7	5	2	-	4-6	10	450
17	Blacksod Point...	1016·4	-2	SW	1	b	45	85	7	-	-	-	0	0	-
18	Malin Head ...	1025·1	+2	SSW	2	c	46	85	7	8	-	-	7-8	7-8	5700
	Aldergrove ...	1026·1	-6	SSW	1	zo	41	85	6	-	-	-	0	0	-
19	Birr Castle ...	1027·8	0	SSE	1	f	30	97	3	5	-	-	10	10	2500
20	Valentia Obsy. †	1027·0	-4	NE'E	2	b	41	92	8	5	-	-	Tr	Tr	2500
	Roches Point ...	1026·9	-2	N	3	zo	43	92	6	5	·	-	9	9	2500

OBSERVATIONS at 18h. G.M.T. 22nd December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1025·4	+6	SW'W	1	bF	27	97	1	-	-	-	0	0	-	3	*
Croydon	1025·6	+8	-	0	bf	28	97	2	-	-	-	0	0	-	3	*
S. Farnborough	1025·8	+8	-	0	bf	27	92	3	-	-	-	0	0	-	1	*
Boscombe Down	1025·3	+2	N	1	bf	31	92	3	-	-	-	0	0	-	3	*
Calshot (Soton.)	1025·0	+4	N	1	bf	31	92	3	-	-	-	0	0	-	3	0
Lympne	1025·9	+6	NE	2	zo	29	85	5	-	-	-	0	0	-	3	§1
Manston	1025·5	+6	-	0	zo	31	75	5	-	-	-	0	0	-	3	*
Shoeburyness	1025·3	+6	NE'E	1	bf	30	92	2	-	-	-	0	0	-	0	*
Felixstowe	1024·5	+6	SW	1	m	33	85	4	-	-	-	0	0	-	3	1
Gorleston	1024·4	0	WSW	2	bc	34	85	5	-	4	-	0	2-3	-	1	2
Mildenhall	1024·8	+6	SW'S	2	bf	31	97	2	-	-	-	0	0	-	3	*
Cranwell	1024·0	+2	W	2	bcf	36	92	3	-	3	2	0	2-3	-	0	*
Birmingham	1025·5	+2	NNW	2	m	39	92	4	5	-	-	7-8	7-8	450	1	*
Upper Heyford	1025·8	+4	-	0	bf	32	92	3	-	-	-	0	0	-	1	*
Ross-on-Wye	1025·5	0	W'N	5	bF	31	97	1	-	-	-	0	0	-	1	*
Hartland Point	1024·6	+2	NE	3	b	42	75	7	-	-	-	0	0	-	0	2
Bristol	1025·8	+2	-	0	bf+	29	97	3	-	-	-	0	0	-	1	*
Portland Bill	1025·0	-4	ENE	3	b	35	92	8	-	-	-	0	0	-	1	3
Plymouth	1024·8	+6	-	0	m	38	75	4	-	-	·	0	0	-	1	1
The Lizard	1024·4	+2	ENE	4	bc	40	85	8	4	-	-	4-6	4-6	2500	1	2
Scilly (St. Mary's)	1024·4	+2	ENE	4	bc	39	75	7	5	-	-	2-3	2-3	2500	1	3
Guernsey	1022·8	+6	WSW	8	bc	40	97	6	2	1	8	2-3	4-6	2500	1	2
Pembroke	1025·9	+4	NE	2	bc	40	85	6	5	-	-	2-3	2-3	2500	1	1
Holyhead	1025·3	+2	WNW	3	b	45	85	7	-	-	-	0	0	-	1	1
Chester (Sealand)	1015·5	+2	NW	2	zo	39	92	5	5	-	-	4-6	4-6	4000	1	*
Manchester	1025·8	+8	-	0	cf	36	97	2	5	-	-	7-8	7-8	4000	1	*
Spurn Head	1023·9	+2	WNW	3	f	39	92	3	-	-	8	0	4-6	-	0	1
Catterick	1023·8	+6	-	0	zo	37	92	6	5	3	-	Tr	1	4000	1	*
Tynemouth	1028·1	+2	W	3	bc	44	85	6	8	3	1	2-3	4-6	2500	1	1
St. Abbs Head	1021·3	+2	WNW	4	bc	46	75	6	7	6	-	4-6	4-6	2500	0	3
Leuchars	1021·9	+6	W	2	c	42	85	8	4	-	1	4-6	7-8	5700	1	*
Renfrew (Abbots I.)	1023·5	+4	WSW	3	b	43	85	7	5	4	-	Tr	1	2500	1	*
Eskdalemuir	1023·1	+2	WNW	3	c	43	85	8	5	-	-	9	9	1500	1	*
Point of Ayre	1025·1	+2	W	2	c	44	97	7	5	-	-	10	10	2500	0	2
Tiree	1022·9	0	WNW	3	bc	46	85	8	5	3	-	2-3	2-3	4000	0	2
Stornoway	1020·6	+4	SW	4	c	42	85	8	5	4	-	4-6	10	2500	1	2
Dalwhinnie	1022·9	0	W	2	c	39	85	7	4	6	-	4-6	9+	2500	1	*
Aberdeen	1020·4	+4	W'S	3	bc	43	75	6	5	5	-	1	4-6	4000	0	1
Wick	1018·0	+2	W	3	c	42	92	7	5	7	8	7-8	9+	1500	1	1
Lerwick	1012·3	-2	WNW	4	c	46	85	8	5	7	-	7-8	9	1500	1	*
Blacksod Point	1026·5	0	SW	1	bc	40	97	7	-	5	-	0	4-6	-	0	1
Malin Head	1024·6	0	W	2	bc	46	92	8	2	-	2	2-3	4-6	5700	0	2
Aldergrove	1025·8	0	S'W	1	zo	36	92	6	-	-	·	0	0	-	1	*
Birr Castle	1027·7	+4	SSE	1	f	28	97	3	5	-	-	10	10	2500	3	*
Valentia Obsy. †	1026·9	+10	E'N	1	zo	34	97	6	5	-	-	2-3	2-3	2500	1	2
Roches Point	1026·7	+6	N	2	zo	40	92	6	5	-	-	9	9	2500	1	2

PAST 24 HOURS.

Stations	Weather 7h.—13h. 22nd (37)	Weather 13h.—18h. 22nd (38)	Weather 18h. 22nd to 1h. 23rd (39)	Weather 1h.—7h. 23rd (40)
London (Kew)	ofFxbFx	bofbFx	bFFe	bFoFFe
Croydon	FFx	bff	bfwx	bfxoF
S. Farnborough	bfxmo	bbcbfx	f	Fxo
Boscombe Down	bmbfx	bmbfx	bfcfofex	oFFex
Calshot (Soton.)	bfmxmo	bmobf	bffx	ffFFx
Lympne	bmxzo	bmox	bmox	bmox
Manston	bmbcf	bcmobmo	bmobf	bf
Shoeburyness	bzo	bcmxfx	bxff	bxff
Felixstowe	bmmom	bmbcm	bmxf	bffx
Gorleston	czo	cbczo	bzox	boFfx
Mildenhall	bmxcbfx	bfbffx	bffx	oFFx
Cranwell	bcm	bcmbcbf	cf,bFx	bFFx
Birmingham	bf	bbcf	fF	Ff
Upper Heyford	bm	bcmf	bfoF	oFrs
Ross-on-Wye	Fcfbf	bmbf	FFx	Fxof
Hartland Point	bbc	bcb	b	bcbc
Bristol	bfFx	bcbfmofx	bcfxFm	cFedfd
Portland Bill	bc	bcb	b	bc
Plymouth	bzo	bzo	bzomfx	bmf, ofx
The Lizard	bc	bc	c	c
Scilly (St. Mary's)	bbcb	bbc	bcc	cbcc
Guernsey	cbc	bc	bcb	bbcc
Pembroke	cbzo	bbczo	bccw	c
Holyhead	c	cb	bwmocb	bwmocbc
Chester (Sealand)	cmomf	cbccmo	cmo,cff	cfFx
Manchester	cFF	oFF	coFF	oFFe
Spurn Head	cf	cffw	bfw	Ffw
Catterick	cxmbcm	bcmobmo	bmobxb	bmobxmo
Tynemouth	cbc	bc	bc	bc
St. Abbs Head	bc	cbcmo	bc	b
Leuchars	bccbc	bccidobc	cxwbcw	bcwmobw
Renfrew (Abbots I.)	bcmocbc	cbcb	bcmobcc	cbccbc
Eskdalemuir	cbc	bcc	cbcb	bbccido
Point of Ayre	bc	c	ccw	cw
Tiree	c	cbc	bc	bccpr
Stornoway	bccir	cir	c	cRpq
Dalwhinnie	cid	cir	*	ciro
Aberdeen	cbc	bczo	bccbc	bcczo
Wick	cproc	cprc ⊕	cbcc	cbc
Lerwick	cid	cir	cpro	c [gale symbol]
Blacksod Point	b	bc	b	c
Malin Head	c	cbc	cbcc	bcc
Aldergrove	bmo	bbcb	bmoxcmow	cmobcmox
Birr Castle	ff	ff	bffc	bx
Valentia Obsy. †	bxfb	bbw bcmox	bcmoxbmx	bx
Roches Point	czo	czo	czow	c

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s₀, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s₀/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.

q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r₀, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
⊕ Solar halo. ⏀ lunar halo. Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

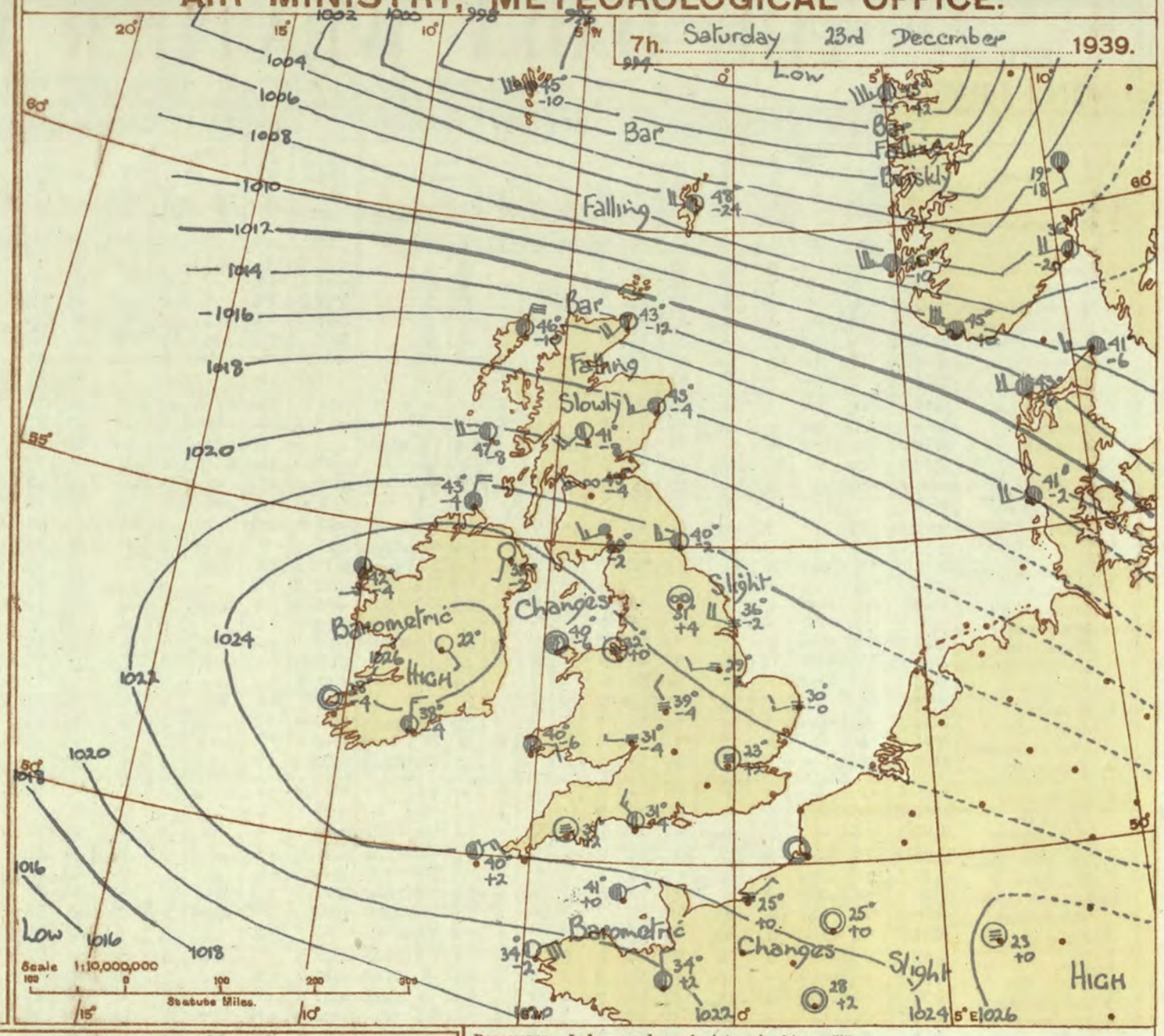
Cloud form abbreviations:— Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.



BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 23rd December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Calm to light variable winds; fog persisting in many places with continuous frost; brighter during the day in some rural areas towards the west; frost at night.
5 S.W. England 6 South Wales ... 7 North Wales ...	Light variable winds; fair apart from fog night and morning, persisting locally; cold with frost at night.
8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man	Wind westerly, light to moderate; fair; local fog in morning; average day temperature; local night frost.
13 A. W. Scotld. B.N.W.Scotland. 14 Mid Scotland	Wind southwest, fresh to strong on the coast, moderating tomorrow; fair at first, some occasional light rain later; mild.
15 N. E. Scotland 16 Orkneys and Shetlands	Westerly gale veering north, moderate to fresh ; cloudy, occasional rain, brighter periods tomorrow; mild becoming colder.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	As 5 - 7.

GENERAL INFERENCE.

A belt of high pressure extends from Ireland across Europe to Italy and the Balkans, whilst a deep depression off the Norwegian coast will move east-south-east to the Baltic. Weather will be quiet and rather foggy in the South with frost persisting locally. Further north conditions will be mainly fair and mild but some occasional rain is likely in the extreme North and Northwest.

FURTHER OUTLOOK.

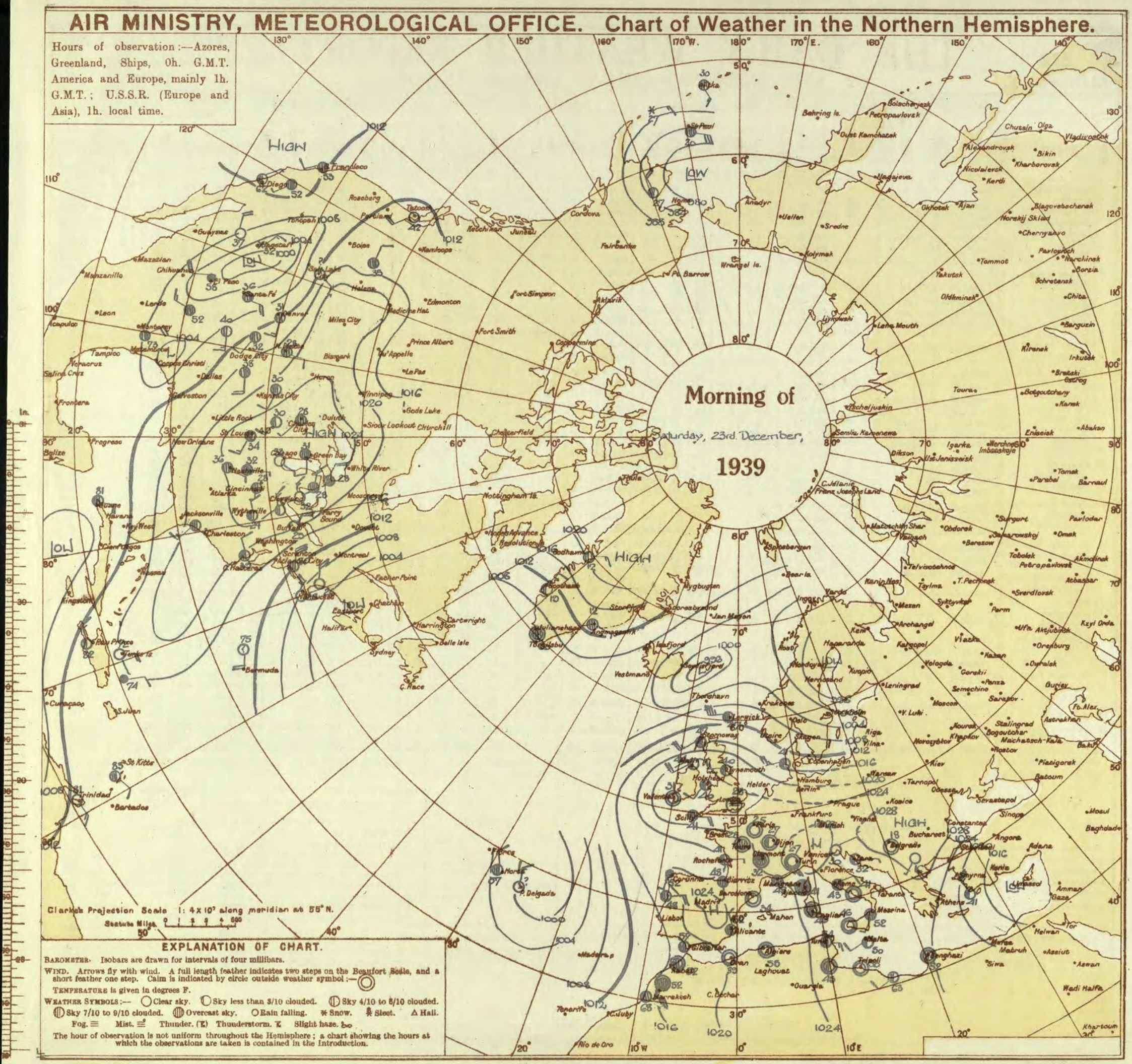
Similar in the South; changeable in the North

Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Saturday 23rd December 1939.

No. 28520

OBSERVATIONS at 1 hr. G.M.T. 23rd December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1025·4	-2	-	0	bf-	25	97	3	-	-	-	0	0	-
	S. Farnborough	226	1025·7	-4	W'S	1	F	26	92	0	-	-	-	10	10	<150
	Boscombe Down	417	1025·2	-8	NNE	1	F+	33	97	1	-	-	-	10	10	<150
	Calshot (Sthmtn.)	8	1025·0	-2	NNW	2	b	28	92	2	-	-	-	0	0	-
	Lympne ...	346	1025·2	-2	-	0	Zo	30	85	6	-	-	-	0	0	-
	Manston ...	154	1025·1	-2	NW	1	bf+	28	92	2	-	-	-	0	0	-
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1024·0	-6	W'N	2	bf	31	92	3	-	-	-	0	0	-
	Gorleston ...	5	1023·7	-10	WSW	2	b	32	85	6	-	-	-	0	0	-
	Mildenhall ...	19	1024·2	-6	SW	2	f	28	97	2	-	-	-	10	10	<150
	Cranwell ...	240	1023·9	-6	W	2	bF	33	97	1	-	-	-	0	0	-
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1025·4	-2	-	0	F	32	97	1	-	-	-	10	10	<150
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1025·0	0	ENE	2	b	40	85	6	-	-	-	0	0	-
	Bristol ...	209	1025·6	-4	-	0	oF+	34	97	1	5	-	-	10	10	800
	Portland Bill ...	32	1024·4	-4	ENE	3	b	34	92	7	-	-	-	0	0	-
	Plymouth ...	82	1025·0	0	-	0	m	34	92	4	-	-	-	0	0	-
	The Lizard ...	240	1024·9	0	NE	2	c	38	92	7	8	2	-	7-8	9+	1500
	Scilly (St. Mary's)	163	1024·5	-2	E'N	4	c	41	75	7	8	-	-	10	10	2500
	Guernsey ...	175	1022·7	-4	ENE	1	b	38	85	6	-	-	-	0	0	-
6	Pembroke ...	142	1025·1	-4	ENE	1	c	40	97	7	5	-	-	9+	9+	2500
7	Holyhead ...	26	1025·0	-2	S'W	2	b	40	97	6	2	-	-	Tr	Tr	2500
	Chester (Sealand)	16	1025·0	-6	-	0	of+	38	92	2	5	-	-	10	10	4000
8	Manchester ...	70	1024·9	-10	-	0	F	38	97	0	-	-	-	10	10	<150
10	Spurn Head ...	29	1023·4	-2	WNW	4	bf+	37	97	3	-	-	-	0	0	-
	Catterick ...	175	1022·7	-10	NW'N	2	b	40	85	7	-	-	-	0	0	-
	Tynemouth ...	108	1022·9	0	W'S	3	bc	40	85	6	2	-	-	2-3	2-3	2500
11	St. Abbs Head	280	1021·4	0	NW	4	bc	46	65	8	7	-	-	4-6	4-6	2500
	Leuchars ...	36	1021·7	-2	SW	1	c	40	92	8	5	-	-	7-8	7-8	5700
12	Renfrew (Abbots I.)	19	1022·8	-6	SW	2	Zo	45	85	6	5	-	-	9	9	4000
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	1024·8	0	W	2	c	41	97	7	5	3	-	4-6	9	2500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1015·4	-6	SW	5	c	47	85	7	5	7	-	7-8	9+	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1016·7	-10	SW	3	c	45	85	8	5	7	-	7-8	9+	2500
16	Lerwick ...	156	1009·7	-16	W	7	c	47	85	8	5	7	-	4-6	9	1500
17	Blacksod Point	18	1025·8	-4	S	3	b	41	92	7	-	-	-	0	0	-
18	Malin Head ...	84	1024·7	-2	SWW	4	bc	44	92	8	4	-	1	2-3	4-6	4000
	Aldergrove ...	268	1025·8	-2	S'W	1	Zo	35	92	6	5	3	-	4-6	7-8	4000
19	Birr Castle ...	173	1027·1	-4	SSE	1	c	27	92	8	5	-	-	9	9	2500
20	Valentia Obsy.	30	1026·5	-6	-	0	bfs	31	92	8	-	-	-	0	0	-
	Roches Point	22	1026·7	-4	N	4	Zo	36	97	5	5	-	-	9	9	2500

OBSERVATIONS at 7 hr. G.M.T. 23rd December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
1	London (Kew)	1025·2	0	W	1	F	27	97	1	-	-	-	10	10	<150	3	*
	Croydon ...	1025·2	+2	-	0	F	23	97	0	-	-	-	10	10	<150	3	*
	S. Farnborough	1025·2	+2	WNW	1	F+	29	97	1	-	-	-	10	10	<150	3	*
	Boscombe Down	1024·9	+2	N'E	2	F	32	97	1	-	-	-	10	10	<150	1	*
	Calshot (Sthmtn.)	1024·8	+2	NNW	2	F	29	97	1	-	-	-	10	10	<150	3	1
	Lympne ...	1024·6	0	NNW	1	Zo	31	85	6	-	-	-	0	0	-	3	§1
	Manston ...	1024·4	-2	WNW	1	bf-	25	92	3	-	-	-	0	0	-	3	*
2	Shoeburyness ...	1024·5	-2	-	0	F	27	97	1	-	-	-	10	10	<150	3	*
	Felixstowe ...	1024·0	+2	W	2	f	31	97	2	-	-	-	10	10	<150	3	2
	Gorleston ...	1023·2	0	W'S	2	F+	30	97	1	-	-	-	10	10	<150	3	2
	Mildenhall ...	1024·2	+2	WSW	2	F-	29	97	1	-	-	-	10	10	<150	3	*
	Cranwell ...	1023·8	-2	W	2	bF	29	97	1	-	-	-	0	0	-	3	*
3	Birmingham ...	1024·7	-4	NNW	2	of	39	97	2	5	-	-	10	10	450	1	*
	Upper Heyford	1025·1	-2	-	0	F	34	97	1	-	-	-	10	10	<150	1	*
4	Ross-on-Wye	1025·2	-4	W	1	of	31	92	2	5	-	-	10	10	220	1	*
5	Hartland Point	1023·7	-4	ENE	3	bc	40	85	7	5	-	-	4-6	4-6	1500	0	2
	Bristol ...	1025·2	-2	NNE	2	df	36	97	5	5	-	-	10	10	220	1	*
	Portland Bill ...	1023·9	-4	NE	3	bc	31	92	6	5	-	-	2-3	2-3	2500	1	3
	Plymouth ...	1024·8	+2	-	0	F+	31	97	0	-	-	-	10	10	<150	3	0
	The Lizard ...	1024·1	-2	E'N	3	c	40	85	7	8	2	-	9	10	1500	0	2
	Scilly (St. Mary's)	1023·7	+2	NE'E	3	c	40	85	7	5	-	-	7-8	7-8	2500	1	2
	Guernsey ...	1022·8	0	ENE	1	c	41	92	7	8	1	-	7-8	10	2500	0	2
6	Pembroke ...	1024·5	-6	E	2	c	40	97	7	5	-	-	9+	9+	2500	1	1
7	Holyhead ...	1024·5	-6	-	0	c	40	97	6	5	-	-	7-8	7-8	2500	1	1
	Chester (Sealand)	1024·6	0	-	0	bf+	32	92	1	-	-	-	0	0	-	3	*
8	Manchester ...	1024·5	-2	-	0	F-	40	97	1	-	-	-	10	10	<150	1	*
10	Spurn Head ...	1023·0	-2	WNW	4	F	36	97	1	-	-	-	10	10	<150	1	2
	Catterick ...	1022·8	+4	-	0	Zo	31	97	6	-	-	-	0	0	-	3	*
	Tynemouth ...	1022·6	-2	W	3	bc	40	92	6	8	-	-	4-6	4-6	2500	1	2
11	St. Abbs Head	1019·9	-4	W	4	bc	41	85	7	4	-	-	2-3	2-3	2500	0	2
	Leuchars ...	1020·1	-2	WSW	2	bc	39	92	7	5	-	-	2-3	2-3	5700	1	*
12	Renfrew (Abbots I.)	1021·7	-4	WSW	3	Zo	43	85	6	5	-	-	1	1	4000	1	*
	Eskdalemuir ...	1022·3	-2	SW'W	3	id.	39	97	7	5	-	-	9+	9+	800	1	
	Point of Ayre...	1023·8	0	WNW	2	b	44	97	7	5	3	-	7-8	10	1500	0	1
13A	Tiree	1020·2	-8	W'S	4	c	47	85	8	5	-	-	7-8	7-8	2500	0	3
13B	Stornoway ...	1017·4	-10	NNE	6	cpr	46	85	6	8	7	-	9	9+	1500	1	3
15	Dalwhinnie ...	1020·0	-8	SW	4	bc	41	85	6	4	6	-	4-6	4-6	2500	0	*
	Aberdeen ...	1017·9	-4	W'S	3	c	43	75	6	5	-	-	7-8	7-8	4000	0	1
	Wick ...	1013·8	-12	SW	4	bc	43	85	8	5	4	-	2-3	2-3	1500	1	2
16	Lerwick ...	1004·4	-24	W	8	c	48	85	8	8	7	-	4-6	7-8	1500	1	*
17	Blacksod Point	1024·5	-4	S	3	c	42	92	7	5	-	-	7-8	7-8	800	0	2
18	Malin Head ...	1022·1	-4	W'S	4	o	43	85	7	8	-	-	7-8	7-8	4000	0	3
	Aldergrove ...	1024·8	-2	S'W	1	b	32	97	6	-	-	-	0	0	-	1	*
19	Birr Castle ...	1026·5	*	SE	1	b	22	97	8	-	-	-	0	0	-	3	*
20	Valentia Obsy.	1025·7	-4	-	0	b	28	97	8	5	-	-	1	1	2500	5	2
	Roches Point	1025·5	-4	N	3	c	38	92	8	5	-	-	9+	9+	2500	1	3

PAST 24 HOURS.

District	Stations	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Temperature Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 22nd Hrs. (36)
1	London (Kew)	36	24	15	Tr	0·1	2·2
	Croydon ...	36	23	17	-	Tr	1·9
	S. Farnborough	39	18	16	-	-	5·8
	Boscombe Down	35	28	23	-	Tr	3·6
	Calshot (Sthmtn.)	39	25	23	-	-	5·9
	Lympne ...	37	28	15	0·2	-	5·0
	Manston ...	36	25	14	-	-	3·8
2	Shoeburyness ...	41	25	25	-	-	3·9
	Felixstowe ...	37	28	22	-	-	3·0
	Gorleston ...	37	29	27	-	-	*
	Mildenhall ...	34	28	21	Tr	Tr	0·4
	Cranwell ...	40	29	28	Tr	Tr	2·4
3	Birmingham ...	41	36	33	-	-	0·1
	Upper Heyford	39	29	20	Tr	0·2	*
4	Ross-on-Wye	37	24	20	0·1	-	2·9
5	Hartland Point	42	37	35	-	-	6·3
	Bristol ...	39	28	22	-	0·1	0·0
	Portland Bill ...	39	30	*	-	-	*
	Plymouth ...	41	30	20	-	-	6·9
	The Lizard ...	43	38	*	-	-	5·5
	Scilly (St. Mary's)	42	38	*	-	-	5·4
	Guernsey ...	41	37	29	1	-	1·2
6	Pembroke ...	46	37	*	-	-	4·8
7	Holyhead ...	46	38	33	-	-	0·2
	Chester (Sealand)	43	31	28	-	-	0·0
8	Manchester ...	37	35	30	-	-	0·0
10	Spurn Head ...	41	35	*	-	Tr	0·8
	Catterick ...	45	30	23	-	-	3·4
	Tynemouth ...	39	46	33	-	-	4
11	St. Abbs Head	48	40	*	-	-	*
	Leuchars ...	49	37	27	Tr	-	2·0
12	Renfrew (Abbots I.)	49	39	34	-	-	3·1
	Eskdalemuir ...	45	36	30	-	0·1	2·9
	Point of Ayre...	47	38	*	-	-	2·4
13A	Tiree	49	45	41	-	1	0·5
13B	Stornoway ...	47	42	*	1	1	0·1
15	Dalwhinnie ...	43	38	*	0·3	0·1	0·0
	Aberdeen ...	48	40	29	-	-	1·0
	Wick ...	47	42	*	0·3	-	*
16	Lerwick ...	46	45	*	3	Tr	0·0
17	Blacksod Point	45	37	*	-	-	*
18	Malin Head ...	49	40	*	-	-	3·2
	Aldergrove ...	41	31	24	-	Tr	4·7
19	Birr Castle ...	30	21	19	-	-	0·0
20	Valentia Obsy.	45	27	22	-	Tr	5·5
	Roches Point	44	36	*	-	Tr	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon (24 hrs. ended 9h.)	Weather Night (24 hrs. ended 9h.)	Temperature Day Max. °F.	Temperature Night Min. °F.	Temperature Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday.)	Humidity 15h. G.M.T. % (Yesterday.)	Humidity 9h. G.M.T. % (To-day.)	Visibility 9h.
Kew...	18	oFFxbfx	bcfbFx	bFFa	36	24	15	Tr	0·1	2·2	*	*	
Croydon	217	FFx	bff	bfwxF	36	23	17	-	Tr	1·9	*	*	
Greenwich (Royal Observatory)...	149												
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park) ...	27	*	*	*									*
Regents Pk. (Botanic Gardens)‡...	168	*	*	*									*
Camden Square	110			*						*	*		*
Kensington	80			*									*
Hampstead Observatory	450										*		*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 23rd

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 22nd December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 23rd December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1024·6	-	0	Zo	28	1024·6	-	0		25	32	25	-	-
Brussels														
Berlin														
Zürich														
Rome						1006·2	ENE	2	bc	57	*	*		-

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 6, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1½ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

0 Calm.	5 Very rough.
1 Smooth.	6 High.
2 Slight.	7 Very high.
3 Moderate.	8 Preciptious.
4 Rough.	9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Sunday, 24th, December 1939.
No. 28,521

OBSERVATIONS at 13h. G.M.T. 23rd. December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1024.7	-12	WNW	1	F	30	97	1	-	-	-	10	10	<150
	Croydon ...	1024.9	-12	-	0	F	28	97	0	-	-	-	10	10	<150
	S. Farnborough	1025.0	-10	W	2	F	31	97	1	-	-	-	10	10	<150
	Boscombe Down	1025.1	-6	N'E	2	F	33	97	1	-	-	-	10	10	<150
	Calshot (Soton.)	1024.6	-10	NNW	2	F	32	97	1	-	-	-	10	10	<150
	Lympne ...	1024.3	-10	WNW	1	z_0	36	75	5	-	-	-	0	0	-
	Manston ...	1024.0	-12	NW	2	F	31	97	0	-	-	-	10	10	<150
2	Shoeburyness ...	1024.5	-12	-	0	F+	30	97	0	-	-	-	10	10	<150
	Felixstowe ...	1023.6	-6	NW	1	F	33	97	1	-	-	-	10	10	<150
	Gorleston ...	1023.4	-6	W	2	F	31	92	1	-	-	-	10	10	<150
	Mildenhall ...	1023.7	-12	WSW	2	F+	31	97	0	-	-	-	10	10	<150
	Cranwell ...	1023.2	-14	WN	2	m	38	85	4	-	-	-	0	0	-
3	Birmingham	1024.8	-4	NW	2	m	41	92	4	5	-	-	9+	9+	800
	Upper Heyford	1024.8	-8	SW'S	1	F	37	97	1	-	-	-	10	10	<150
4	Ross-on-Wye ...	1024.7	-8	NW'W	1	oF	35	97	1	5	-	-	10	10	<150
5	Hartland Point	1024.4	-8	ENE	2	c	39	92	6	5	-	-	9+	9+	1500
	Bristol ...	1025.4	-6	-	0	of	36	97	2	5	-	-	10	10	220
	Portland Bill ...	1024.2	-10	NE	3	b	37	65	7	-	-	-	0	0	-
	Plymouth ...	1024.6	-14	NE	1	bc/f	38	85	5	5	-	-	4-6	4-6	2500
	The Lizard ...	1023.6	-8	E	3	c	41	85	7	5	2	-	7-8	9+	1500
	Scilly (St. Mary's)	1024.0	-6	NE'E	3	z_0	41	65	6	5	-	-	10	10	2500
	Guernsey ...	1023.0	-8	ENE	1	z_0	42	92	5	5	2	-	9	10	2500
6	Pembroke ...	1025.1	-2	-	0	bc	43	85	7	7	-	-	4-6	4-6	4000
7	Holyhead ...	1024.2	-10	W	1	c	46	85	6	5	-	-	9+	9+	4000
	Chester (Sealand)	1024.5	-10	W	1	c/f	44	85	6	5	-	-	9+	9+	2500
8	Manchester ...	1024.6	-6	SW	1	of	42	97	2	5	-	-	10	10	2500
10	Spurn Head ...	1022.2	+8	WNW	4	bcf-	41	92	3	-	-	8	0	2-3	-
	Catterick ...	1022.3	-10	WSW	2	b	46	75	6	5	-	-	1	1	2500
	Tynemouth ...	1022.0	-8	W	3	z_0	45	85	5	2	-	-	2-3	2-3	2500
11	St. Abbs Head	1018.5	-12	W	5	bc	45	85	8	7	6	-	4-6	4-6	2500
	Leuchars ...	1018.8	-14	WSW	5	r	44	75	8	5	7	-	7-8	10	2500
12	Renfrew (Abbots I.)	1021.2	-10	W'S	4	c	46	85	7	8	3	5	7-8	9	2500
	Eskdalemuir ...	1021.7	-12	WSW	3	bc	43	75	7	5	-	-	2-3	2-3	1500
	Point of Ayre ...	1023.5	-4	NW'W	4	b	47	75	8	1	-	-	Tr	Tr	4000
13A	Tiree ...	1019.6	-6	WN	4	c	48	85	8	8	-	-	7-8	7-8	1500
13B	Stornoway ...	1016.6	-4	WSW	5	c	48	85	7	5	5	7	4-6	10	2500
15	Dalwhinnie ...	1018.4	-14	WSW	2	z_0	41	86	6	5	6	-	2-3	4-6	4000
	Aberdeen ...	1015.8	-18	SSW	4	bc	48	65	6	5	3	2	1	2-3	4000
	Wick ...	1012.5	-10	WSW	4	c	47	85	8	5	7	8	4-6	9+	2300
16	Lerwick...	1004.2	-2	W	8	c/pr	46	92	7	8	7	-	7-8	10	800
17	Blacksod Point..	1024.5	-2	SW	3	r_0r_0	44	97	7	6	-	-	10	10	<150
18	Malin Head ...	1022.8	-6	W	3	c	45	65	7	5	7	-	4-6	7-8	5700
	Aldergrove ...	1025.0	-2	S'W	2	c	37	85	7	5	-	-	9	9	5700
19	Birr Castle ...	1026.4	*	SW	1	bc	31	92	7	5	-	-	4-6	4-6	2500
20	Valentia Obsy. †	1025.7	-4	-	0	b	38	85	8	-	-	-	0	0	-
	Roches Point ...	1025.5	-6	N	3	z_0	41	85	6	-	-	-	0	0	-

OBSERVATIONS at 18h. G.M.T. 23rd. December — PAST 24 HOURS.

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Weather 7h.–13h. 23rd. (37)	Weather 13h.–18h. 23rd. (38)	Weather 18h. 23rd – 1h. 24th. (39)	Weather 1h.–7h. 24th. (40)
London (Kew)	1024.8	0	W'S	1	F	31	97	1	-	-	-	10	10	<150	3	*	oFFx	oFFx	oFeFex	oFeFex
Croydon	1024.9	+2	-	0	F	28	97	0	-	-	-	10	10	<150	3	*	oFFex	oFFex	oFexFe	oFeFx
S. Farnborough	1025.1	+2	W	2	F	31	97	1	-	-	-	10	10	<150	3	*	FxeF	Fxeo	FxeFeo	Feo
Boscombe Down	1024.6	-4	N'E	2	F	32	97	1	-	-	-	10	10	<150	1	*	oFFex	oFFe	oFFe	bFFe
Calshot (Soton.)	1024.6	+2	N'W	2	F	31	97	1	-	-	-	10	10	<150	1	1	FFx	FF	FfFefe	FFdd
Lympne	1024.1	0	NNW	2	z_0	33	85	5	-	-	-	0	0	-	3	§ 0	bm_0x	bz_0m_0x	bm_0Fx	bFxcf
Manston	1023.9	-2	NW'W	2	F	30	97	0	-	-	-	10	10	<150	3	*	bfoFf	F	F	F
Shoeburyness	1024.1	0	-	0	F+	30	97	0	-	-	-	10	10	<150	3	*	xFF	xFF	xFF	xFF
Felixstowe	1023.1	0	WNW	1	F	30	97	1	-	-	-	10	10	<150	5	1	fFF	FF,x	FF	$IFbm_0x$
Gorleston	1023.0	-2	SW	2	F	31	85	1	-	-	-	10	10	<150	1	2	oFfx	oFfe	oFfx	oFfx
Mildenhall	1023.7	+2	WSW	2	F	31	97	0	-	-	-	10	10	<150	3	*	oFFx	oFFx	oFFxe	oFebfx
Cranwell	1023.1	+2	W'N	2	f	37	97	2	-	-	-	0	0	-	0	*	bFFbm	bmf	bfx	bff,cm_0x
Birmingham	1024.3	0	WNW	2	f	39	85	3	-	3	-	0	4-6	-	1	*	fem	embcf	fbcm	bcb
Upper Heyford	1024.5	-14	-	0	m	38	97	4	5	-	-	10	10	800	1	*	FF	oFom	ofbfoFbcf	bFfbFx
Ross-on-Wye	1024.6	0	W	1	F-	35	97	1	5	-	-	10	10	<150	1	*	ofFFe	FF	Fof	$ofmbm_0x$
Hartland Point	1024.1	0	ENE	2	c	39	92	7	5	2	-	7-8	9+	1500	0	2	bcc	c	c	cbcb
Bristol	1025.3	+4	N	1	of	36	97	2	5	-	-	10	10	220	1	*	ofdfe	ofe	ofeFe	Fe
Portland Bill	1023.9	+8	NE	3	e	33	92	6	4	-	-	4-6	9	4000	1	3	bcb	$bccz_0$	off	off
Plymouth	1024.5	+8	E'N	1	f	35	85	4	5	-	-	2-3	2-3	4000	1	1	Fxfcf	bcf	$cbcm m_0x$	$cbcm_0x$
The Lizard	1024.3	+4	NNE	3	c	37	92	6	5	-	-	9+	9+	1500	1	2	ccz_0	cz_0	cz_0	c
Scilly (St. Mary's)	1024.0	+2	NE	2	c	40	85	6	8	6	-	4-6	7-8	1500	1	2	cl	cz_0c	cz_0b	bz_0bc
Guernsey	1022.9	0	ENE	1	z_0	42	92	5	2	2	-	4-6	4-6	2500	0	2	cz	czbc	bczc	c
Pembroke	1024.8	0	S'E	1	c	42	92	7	5	-	-	9+	9+	2500	1	1	cbc	bcc	c	bbcif
Holyhead	1024.0	0	W'N	3	b	44	85	7	1	-	-	Tr	Tr	4000	1	1	cffbc	cm_0bcb	buc	cid_0c
Chester (Sealand)	1024.1	+2	NW	1	z_0	40	85	6	5	-	-	7-8	7-8	4000	1	*	b,cfcfcm	cm_0	c,bm_0bcx	$bccmxcm_0$
Manchester	1023.9	-2	W	2	m	40	97	4	5	-	-	2-3	2-3	4000	1	*	FFeff	$eFFm_0bcm$	$bcmb_0FF$	oFFcffr
Spurn Head	1022.5	+2	WNW	4	m	40	92	4	-	3	8	0	4-6	-	1	2	bcFf	cmw	bcm_0w	cm_0w
Catterick	1022.0	-2	WSW	1	b	38	85	7	-	3	-	0	2-3	-	1	*	xbm_0bc	$bcbm_0x$	$bxbcm_0$	bcm_0b
Tynemouth	1021.2	-6	W	4	bc	41	85	6	2	-	-	4-6	4-6	2500	1	2	bcm	bc	bc	bc
St. Abbs Head	1017.8	+4	SW	5	bc	43	85	8	4	4	1	2-3	4-6	2500	0	3	cbc	bc	cbc	cbc
Leuchars	1017.5	+2	WSW	2	c	43	85	7	5	-	-	7-8	7-8	4000	1	*	cir	bcm_0bcc	cbcc	c
Renfrew (Abbots I.)	1019.9	-6	WSW	4	c/pr	46	85	7	8	3	6	7-8	7-8	1500	1	*	bm_0wbcc	$cpr_0m_0pr_0$	cpr_0c	$cr_0r_0m_0pr_0$
Eskdalemuir	1021.1	0	SW'W	3	c	41	85	7	5	-	-	9+	9+	1500	1	*	id_0bcb	bbcc	cid_0c	$cbcpr_0$
Point of Ayre	1023.0	0	W'N	3	c	44	85	8	-	3	-	0	9+	-	0	2	cbcb	bbcc	ir_0c	cbc
Tiree	1019.6	0	WNW	4	c	49	85	8	5	-	-	7-8	7-8	4000	0	3	c	c	cbc	bccir
Stornoway	1016.2	+2	WSW	6	c	48	85	7	5	5	9	4-6	9	2500	1	2	c	c	cr_0r_0	cr_0r_0
Dalwhinnie	•	0	S	3	ir	43	85	7	4	2	-	4-6	9+	2500	1	*	cm_0cbcm	cir	[illegible]	cir
Aberdeen	1019.5	-10	W	3	c	47	65	7	5	7	-	1	9	4000	1	1	$cbcz_0$	bcz_0c	ccz_0	cz_0bc
Wick	1011.8	0	WSW	3	r_0r_0	46	92	6	5	2	-	7-8	10	1500	1	2	cprcg	cd_0r_0	r_0irc	$rrcm_0$
Lerwick	1007.2	+18	NNW	4	c	41	92	7	8	7	-	7-8	10	1500	1	*	cpr[illegible]	cir_0	cbc	bcc
Blacksod Point	1024.2	0	SW	2	RR	47	97	7	6	-	-	10	10	<150	1	2	ir_0	iR	bc	bc
Malin Head	1022.0	+2	NW'N	2	c	47	92	7	8	-	-	7-8	7-8	4000	1	3	cbcc	cpr_0pr_0c	c	cbcc
Aldergrove	1023.8	0	S'W	2	z_0	37	92	6	5	-	-	9+	9+	5700	1	*	bbcc	$cbcm_0cm_0$	cm_0cprm_0c	cm_0bcm_0
Birr Castle	1026.1	0	S'W	1	f	27	92	3	5	-	-	10	10	2500	3	*	bc	off	c	c
Valentia Obsy. †	1025.3	+2	NE'E	2	b	34	92	7	-	-	-	0	0	-	3	1	bcxb	bbx	bxm_0bx	bx
Roches Point	1025.4	+2	N	2	z_0	38	92	5	-	-	-	0	0	-	1	2	bz_0	bz_0	bmwx	bx

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_0, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_0/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_0, slight rain. rr, continuous rain.
<, less than (for cloud height). ⚑ gale.
⊕ Solar halo. ⦶ lunar halo. ⌂ Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:— Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

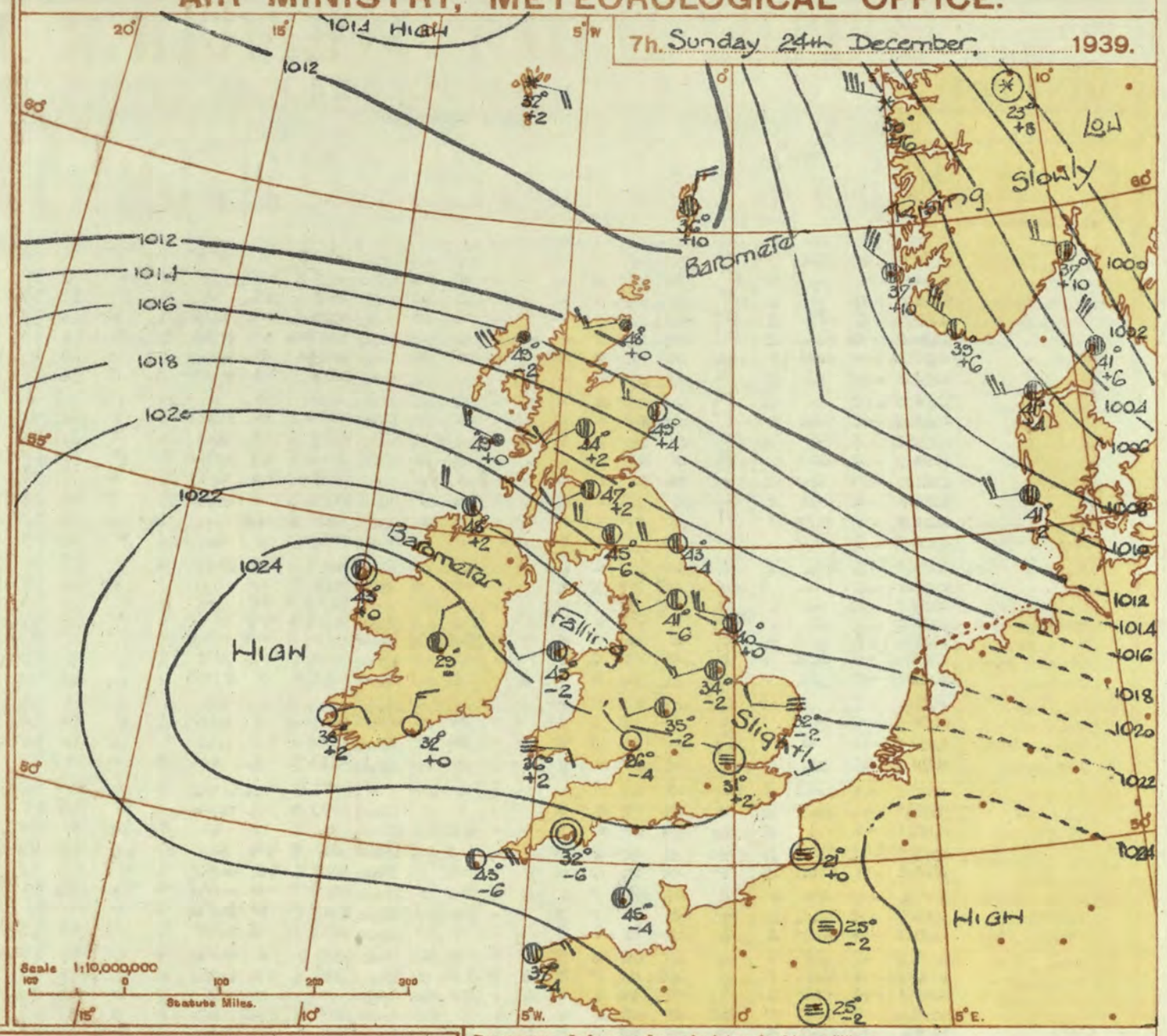
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. „ wet.
2 .. „ flooded.
3 .. „ frozen hard and dry.
4 .. „ partly covered with snow or hail.
5 .. „ covered with ice or glazed frost.
6 .. „ covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. „ covered with snow, less than 6 ins., but ground frozen.
9 .. „ covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Sunday 24th December, 1939.



BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 24th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Wind light variable, fair but fog in many places at night and locally by day; temperature rising.
5 S.W. England	Light or moderate easterly winds; fair; rather cold.
6 South Wales ...	As 0 - 4.
7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Wind moderate westerly; fair but local fog at night; average temperature.
13 A. W. Scotld. B.N.W.Scotland. 14 Mid Scotland	Fresh or strong west wind; cloudy, some local rain; mild.
15 N. E. Scotland 16 Orkneys and Shetlands	Wind variable moderate; cloudy, occasional rain or sleet, rather cold.
17 N. W. Ireland 18 N. E. Ireland	As 7 - 12.
19 S. E. Ireland 20 S. W. Ireland	As 0 - 4.

GENERAL INFERENCE.

A belt of high pressure extends from Ireland to the Balkans and a trough of low is almost stationary across the North of Scotland. Apart from local rain in Scotland the weather will be generally fair but there will be fog in southern districts,

FURTHER OUTLOOK.

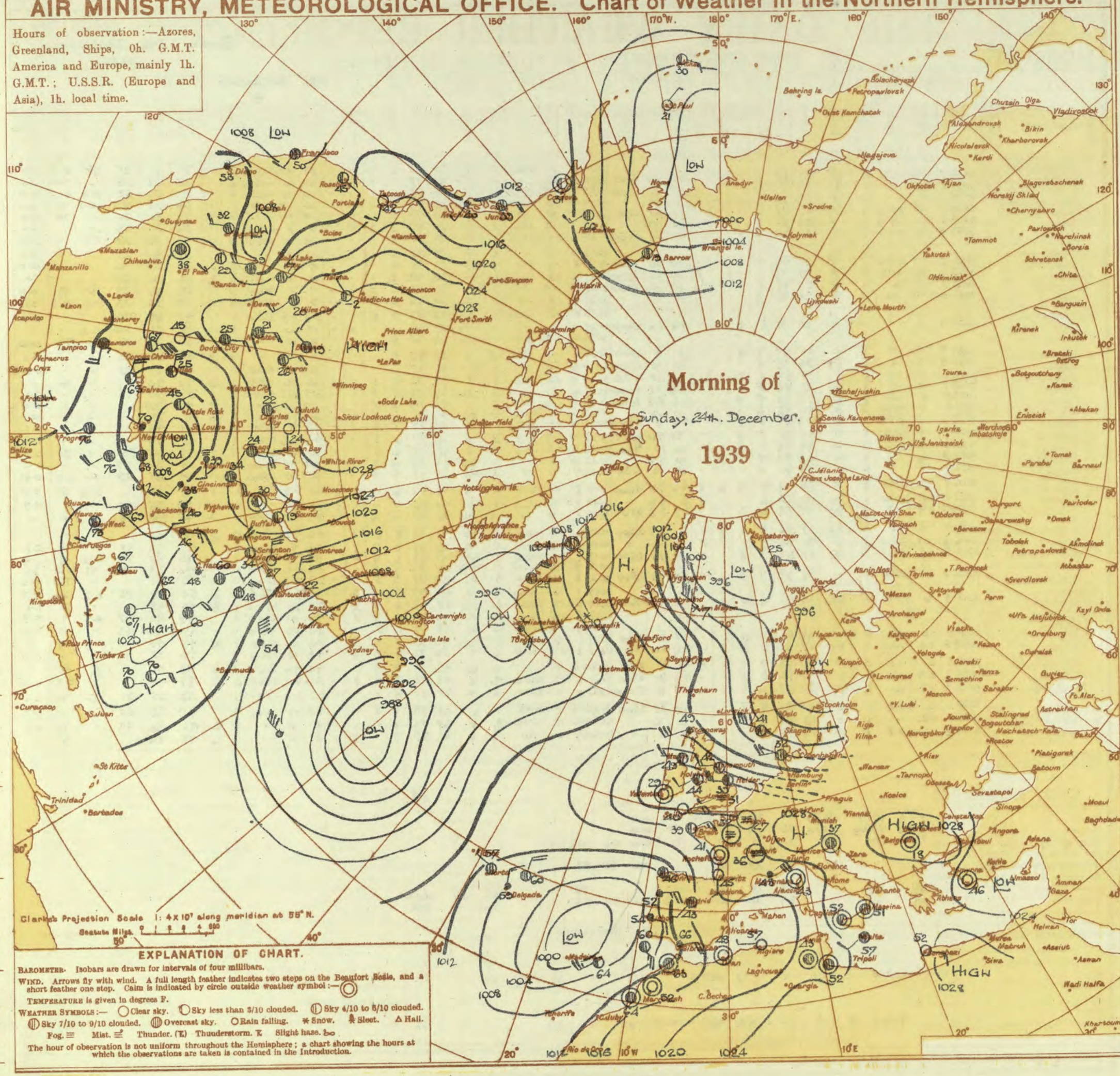
Little change.

Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Sunday 24th December 1939.

No. 28,521

OBSERVATIONS at 1 hr. G.M.T. 24th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	Humid. % (7)	Visibility. 0–9 (8)	Cloud. Form. Low. (9)	Cloud. Form. Med. (10)	Cloud. Form. High (11)	Cloud. Amount. Low 0–10 (12)	Cloud. Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	18														
	Croydon ...	217	1024·7	-4	W'S	1	F	31	97	1	-	-	-	10	10	<150
	S. Farnborough	226	1024·7	-6	W	1	F	33	85	0	-	-	-	10	10	<150
	Boscombe Down	417	1024·7	-6	-	0	F	33	97	1	-	-	-	0	0	-
	Calshot (Sthmtn.)	8	1024·6	-6	NNW	2	F+	33	97	1	-	-	-	10	10	<150
	Lympne ...	346	1024·3	-2	N'W	2	F	29	97	1	-	-	-	0	0	-
	Manston ...	154	1023·9	-4	NWW	2	F	31	92	0	-	-	-	10	10	<150
2	Shoeburyness ...	11														
	Felixstowe ...	15	1023·0	-4	NW'W	1	F	32	92	1	-	-	-	10	10	<150
	Gorleston ...	5	1022·3	-2	W'S	2	F	32	95	1	-	-	-	10	10	<150
	Mildenhall ...	19	1022·9	-8	SW	2	F	34	97	1	-	-	-	10	10	<150
	Cranwell ...	240	1022·4	-6	W	2	f-	34	97	3	-	-	-	0	0	-
3	Birmingham ...	535														
	Upper Heyford	408	1024·4	-6	-	0	bcf-	34	97	2	5	5	-	4·6	4·6	4000
4	Ross-on-Wye	223														
5	Hartland Point	299	1024·4	-4	E	3	c	35	97	7	5	-	-	9	9	2500
	Bristol ...	209	1025·4	-2	-	0	F+	34	97	1	-	-	-	10	10	<150
	Portland Bill ...	32	1024·2	-2	NE	3	f	31	92	2	5	-	-	10	10	<150
	Plymouth ...	82	1024·7	0	N	2	Zo	31	85	5	5	-	-	7-8	7-8	4000
	The Lizard ...	240	1023·9	0	NE	3	c	38	85	7	4	-	-	7-8	7-8	2500
	Scilly (St. Mary's)	163	1023·6	0	ENE	3	b	40	92	6	-	-	-	0	0	-
	Guernsey ...	175	1023·1	-2	ENE	1	c	44	85	7	8	1	-	7-8	9	2500
6	Pembroke ...	142	1024·5	-4	SSE	2	c	43	92	7	5	-	-	9+	9+	2500
7	Holyhead ...	26	1024·0	-2	SW	2	c	44	75	7	5	-	-	10	10	4000
	Chester (Sealand)	16	1023·9	-6	-	0	m	32	92	4	-	3	-	0	4·6	-
8	Manchester ...	70	1023·6	-2	-	0	F	34	97	0	-	-	-	10	10	<150
10	Spurn Head ...	29	1020·6	-4	W'N	5	c	39	92	5	4	6	8	4·6	7·8	4000
	Catterick ...	175	1021·0	-2	WNW	1	Zo	40	92	6	-	-	8	0	4·6	-
	Tynemouth ...	108	1024·9	+4	W	3	bc	42	85	6	2	-	-	2-3	2-3	2500
11	St. Abbs Head	280	1016·0	-4	W	6	bc	47	85	8	1	4	1	1	2-3	2500
	Leuchars ...	36	1016·3	-2	WSW	3	c	45	85	7	-	7	7	0	10	-
12	Renfrew (Abbots I.)	19	1019·3	-2	WSW	4	ir	47	85	7	5	-	-	9+	9+	2500
	Eskdalemuir ...	794														
	Point of Ayre...	30	1022·5	0	NW'W	3	c	46	97	7	5	-	-	9+	9+	2500
13A	Tiree	22														
13B	Stornoway ...	80	1015·4	0	WSW	6	rsr	49	97	6	5	1	-	7-8	10	1500
15	Dalwhinnie ...	1176														
	Aberdeen ...	79														
	Wick ...	81	1011·3	-6	WSW	4	rr	47	92	7	5	2	-	7-8	10	1500
16	Lerwick ...	156	1009·9	-6	N'W	1	bc	37	85	8	5	2	-	4-6	4-6	1500
17	Blacksod Point	18	1024·3	0	W	3	c	46	92	7	7	-	-	9	9	800
18	Malin Head ...	84	1022·2	+4	W	3	c	49	92	8	5	7	-	4-6	9+	5700
	Aldergrove ...	268	1023·6	-2	SSW	2	Zo	37	92	6	5	3	-	7-8	9+	4000
19	Birr Castle ...	173	1026·1	0	NNE	1	c	25	92	8	5	-	-	9+	9+	2500
20	Valentia Obsy.	30	1025·1	-6	-	0	b	29	92	8	-	-	-	0	0	-
	Roches Point	22	1025·6	-2	N'E	3	m	34	97	4	-	-	-	0	0	-

OBSERVATIONS at 7 hr. G.M.T. 24th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Cloud. Form. Med. (24)	Cloud. Form. High (25)	Cloud. Amount. Low 0–10 (26)	Cloud. Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1024·1	0	WSW	2	F	34	97	1	-	-	-	10	10	<150	2	*
	Croydon ...	1024·4	+2	-	0	F-	31	97	1	-	-	-	10	10	<150	3	*
	S. Farnborough	1024·2	+2	WSW	1	F	33	97	1	-	-	-	10	10	<150	1	*
	Boscombe Down	1024·6	+2	N	1	F-	29	97	1	-	-	-	10	10	<150	1	*
	Calshot (Sthmtn.)	1024·1	0	N	2	F-	34	97	1	-	-	-	10	10	<150	2	1
	Lympne ...	1023·7	-2	N'W	2	cf-	31	97	3	5	-	-	9	9	2500	3	§1
	Manston ...	1023·6	+2	NW'W	1	F-	31	92	1	-	-	-	10	10	<150	3	*
2	Shoeburyness ...	1023·5	-2	-	0	f	33	92	2	-	2	-	0	1	-	3	*
	Felixstowe ...	1022·4	-2	NW	2	if	33	97	4	-	-	-	0	0	-	5	1
	Gorleston ...	1021·5	-2	W	2	f-	32	92	2	-	-	-	0	0	<150	3	2
	Mildenhall ...	1022·4	-4	SW	2	bf-	31	97	2	5	-	-	1	1	4000	1	*
	Cranwell ...	1021·8	-2	W	3	Zo	34	85	5	5	-	-	9	9	2500	3	*
3	Birmingham ...	1023·5	-2	WSW	2	bc	35	85	7	5	-	-	2-3	2-3	2500	1	*
	Upper Heyford	1024·5	0	-	0	bF+	27	97	1	-	-	-	0	0	-	1	*
4	Ross-on-Wye	1024·0	-4	N'W	1	Zo	26	97	6	-	-	-	0	0	-	1	*
5	Hartland Point	1023·5	-4	E	3	b	39	85	7	-	-	-	0	0	-	0	2
	Bristol ...	1024·8	-2	-	0	F-	27	97	1	-	-	-	10	10	<150	1	*
	Portland Bill ...	1024·0	+2	NE	3	f	33	92	2	5	-	-	10	10	<150	1	3
	Plymouth ...	1023·6	-6	-	0	Zo	32	92	5	5	-	-	2-3	2-3	4000	3	1
	The Lizard ...	1022·8	-10	NE	3	c	42	92	6	5	-	-	10	10	1500	0	2
	Scilly (St. Mary's)	1022·1	-6	ENE	4	bc	43	85	6	2	6	-	2-3	4-6	2500	1	3
	Guernsey ...	1022·4	-4	NE	1	c	45	85	7	8	1	-	7-8	9	2500	0	2
6	Pembroke ...	1025·4	+2	E'S	2	if	36	97	6	5	-	-	4·6	4·6	1500	1	1
7	Holyhead ...	1023·3	-2	W'S	2	c	45	92	6	5	-	-	10	10	2500	1	1
	Chester (Sealand)	1023·0	-2	-	0	Zo	36	85	6	5	-	-	9+	9+	4000	1	*
8	Manchester ...	1022·7	-6	S	2	c/r	37	97	4	5	-	-	10	10	1500	1	*
10	Spurn Head ...	1019·8	0	W'N	5	c	40	92	6	-	4	8	0	7-8	-	1	3
	Catterick ...	1019·9	-6	WSW	1	b	41	85	7	-	-	1	0	2-3	-	1	*
	Tynemouth ...	1019·1	-4	W	4	bc	43	85	6	2	-	-	2-3	2-3	2500	1	2
11	St. Abbs Head	1015·6	+6	WNW	5	bc	48	75	8	8	6	-	4·6	4·6	1500	0	3
	Leuchars ...	1016·2	+2	WSW	4	c	45	85	8	5	7	-	4·6	9	4000	1	*
12	Renfrew (Abbots I.)	1019·1	+2	WSW	2	c/pr	47	92	6	8	-	-	9+	9+	1500	1	*
	Eskdalemuir ...	1018·4	-6	WNW	4	bc/pr	45	85	8	5	-	-	4·6	4·6	1500	1	*
	Point of Ayre...	1021·6	0	WNW	4	bc	46	97	7	5	-	-	2-3	2-3	1500	0	2
13A	Tiree	1019·1	0	WNW	4	ir	49	97	7	-	2	-	9	9	1500	1	3
13B	Stornoway ...	1015·5	-2	WSW	6	rsr	49	92	6	5	2	-	7-8	10	1500	1	3
15	Dalwhinnie ...	1017·8	+2	SW	2	c	44	85	6	4	7	-	4·6	10	2500	1	*
	Aberdeen ...	1014·1	+4	WSW	3	bc	49	75	6	5	-	-	2-3	2-3	4000	0	1
	Wick ...	1011·1	0	W	3	rsr	48	92	7	5	2	-	7-8	10	1500	1	2
16	Lerwick ...	1012·3	+10	N'E	c	c	36	75	8	8	2	-	4·6	10	1500	1	*
17	Blacksod Point	1024·4	0	-	0	bc	43	97	7	3	-	-	4·6	4·6	1500	1	3
18	Malin Head ...	1021·8	+2	NW'W	4	c	48	85	8	4	8	-	2-3	7-8	5700	0	3
	Aldergrove ...	1023·0	0	SSW	2	m	37	97	4	5	-	-	2-3	2-3	2500	1	*
19	Birr Castle ...	1025·4	0	NNE	1	c	29	97	8	5	1	-	7-8	10	2500	3	*
20	Valentia Obsy.	1024·3	+2	ENE	2	b	28	92	8	-	-	-	0	0	-	5	2
	Roches Point	1024·7	0	W	7	b	32	97	7	-	-	-	0	0	-	1	2

PAST 24 HOURS.

District	Stations	Temperature. Max. Day 7h–18h °F. (31)	Temperature. Min. Night 18h–7h °F (32)	Temperature. Min. on Grass °F. (33)	Rainfall. Day 7h–18h mm. (34)	Rainfall. Night 18h–7h mm. (35)	Sunshine 23rd Hrs. (36)
1	London (Kew)						
	Croydon ...	31	30	27	Tr	0·2	0·0
	S. Farnborough	28	28	28	-	Tr	0·0
	Boscombe Down	31	31	31	0·1	0·3	0·0
	Calshot (Sthmtn.)	34	28	27	0·1	Tr	0·0
	Lympne ...	33	30	30	-	Tr	0·0
	Manston ...	36	21	18	-	-	5·7
		31	28	28	Tr	-	0·0
2	Shoeburyness ...	31	30	25		-	0·0
	Felixstowe ...	33	30	30	-	-	0·0
	Gorleston ...	32	31	30	-	-	*
	Mildenhall ...	32	31	28	Tr	Tr	0·0
	Cranwell ...	39	32	29	Tr	0·3	3·6
3	Birmingham ...	42	33	24	*	-	0·0
	Upper Heyford	39	26	20	0·2	-	*
4	Ross-on-Wye	35	25	16	Tr	Tr	0·0
5	Hartland Point	40	34	33	-	-	0·1
	Bristol ...	37	27	25	Tr	-	0·0
	Portland Bill ...	40	30	*	-	Tr	*
	Plymouth ...	39	30	23	-	-	2·1
	The Lizard ...	42	(37)	*	-	-	0·0
	Scilly (St. Mary's)	41	38	*	-	-	0·1
	Guernsey ...	44	42	35	-	-	0·1
6	Pembroke ...	43	34	*	-	-	0·4
7	Holyhead ...	47	41	36	-	Tr	0·3
	Chester (Sealand)	45	32	27	-	-	0·0
8	Manchester ...	44	31	29	-	0·2	0·0
10	Spurn Head ...	41	39	*	0·3	Tr	0·0
	Catterick ...	47	36	25	-	-	4·9
	Tynemouth ...	45	(41)	35	-	-	*
11	St. Abbs Head	46	42	*	-	-	*
	Leuchars ...	47	42	39	-	-	2·3
12	Renfrew (Abbots I.)	46	45	39	0·2	2	1·4
	Eskdalemuir ...	43	38	38	Tr	0·2	3·1
	Point of Ayre...	48	41	*	-	Tr	4·0
13A	Tiree	50	47	45	0·2	2	0·2
13B	Stornoway ...	48	48	*	-	2	0·0
15	Dalwhinnie ...	44	42	37	0·1	1	0·8
	Aberdeen ...	49	46	43	-	-	2·0
	Wick ...	47	46	*	0·4	4	*
16	Lerwick ...	50	35	*	1	-	0·0
17	Blacksod Point	48	41	*	3	4	*
18	Malin Head ...	47	44	*	1	0·4	0·5
	Aldergrove ...	38	35	31	Tr	Tr	2·6
19	Birr Castle ...	34	23	22	-	-	0·0
20	Valentia Obsy.	42	26	22	-	Tr	6·2
	Roches Point	43	32	*	-	Tr	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Weather. Afternoon. (24 hrs. ended 9h.)	Weather. Night. (24 hrs. ended 9h.)	Temperature. Day Max. °F.	Temperature. Night Min. °F.	Temperature. Min. on Grass °F.	Rainfall. Day. mm.	Rainfall. Night. mm.	Sunshine. to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	Humidity. 9h. G.M.T. % (To-day.)	Visibility 9h. (To-day.)
KEW...	18	oFFx	oFFx	ofefex	31	30	27	Tr	0·2	0·0	*	*	1
CROYDON	217	oFFex	oFFex	ofefx	28	28	28	-	Tr	0·0	*	*	
GREENWICH (Royal Observatory)...	149	Fe	Fe	Fx	32	31	30	-	-	0·0	100	100	0
CITY (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
WESTMINSTER (St. James' Park) ...	27	*	*	*	34	29	26	-	-	0·0	99	93	*
REGENTS PK. (Botanic Gardens)‡...	168	*	*	*									*
CAMDEN SQUARE	110	of	of	*	33	29	28	-	0·3	*	*	98	*
KENSINGTON	80	of	of	*	34	30	20	-	0·3	0·0	95	92	*
HAMPSTEAD OBSERVATORY	450										*		*

Atmospheric Pollution.
Milligrams of Solid Impurity per cubic metre.
24 hrs. ended 7h. G.M.T. 24th

SOUTH KENSINGTON.

Max.	Time.	Min.	Time.

KEW OBSERVATORY.

Max.	Time.	Min.	Time.
0·6	21h 23rd	0·1	05-07h 24th

FOREIGN OBSERVATIONS.

Stations.	18h. G.M.T. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	7h. G.M.T. 24th December Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
PARIS	1023·5	-	0	b	32	1023·4	-	0	f-	23	39	23	-	-
BRUSSELS														
BERLIN														
ZÜRICH														
ROME	1026·2	E	2	c	46	1023·5	NNE	6	c	52	*	*	-	Tr

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1½ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6½ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 — Code for State of Sea.

0 Calm.	5 Very rough.
1 Smooth.	6 High.
2 Slight.	7 Very high.
3 Moderate.	8 Preciptious.
4 Rough.	9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Monday 25th December 1939.
No. 28,522

OBSERVATIONS at 13h. G.M.T. 24th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)...	1023.2	-12	SW	2	F	32	97	1	-	-	-	10	10	<150
	Croydon ...	1023.7	-10	—	0	F+	31	97	0	-	-	-	10	10	<150
	S. Farnborough	1023.7	-16	—	0	bf-	34	92	3	-	-	-	0	0	-
	Boscombe Down	1023.8	-14	NNW	2	m	33	92	4	5	-	-	1	1	4000
	Calshot (Soton.)	1023.4	-10	NWW	1	bF-	33	97	1	-	-	-	0	0	-
	Lympne ...	1022.8	-14	WNW	1	zo	43	75	6	-	-	-	0	0	-
	Manston ...	1022.6	-14	NWW	2	zo	38	92	5	-	-	1	0	Tr	-
2	Shoeburyness ...	1022.7	-10	WW	2	bf-	35	92	3	-	-	-	0	0	-
	Felixstowe ...	1021.4	-10	WNW	2	zo	42	92	6	5	-	-	2-3	2-3	4000
	Gorleston ...	1021.4	-6	W'S	2	m	39	92	4	5	-	-	4-6	4-6	1500
	Mildenhall ...	1021.7	-10	SW	2	zo	37	97	5	-	3	1	0	2-3	-
	Cranwell ...	1021.2	-14	W'S	3	zo	41	85	5	5	3	-	4-6	4-6	4000
3	Birmingham	1022.7	-6	W	2	m	44	65	4	-	-	-	0	0	-
	Upper Heyford	1023.8	-10	—	0	m	37	92	4	5	8	-	2-3	4-6	5700
4	Ross-on-Wye ...	1022.9	-12	SW	1	zo	38	85	5	5	-	-	Tr	Tr	2500
5	Hartland Point	1023.4	-6	ENE	2	b	40	85	7	-	-	-	0	0	-
	Bristol ...	1024.5	-6	—	0	cf	30	97	1	5	-	-	9+	9+	450
	Portland Bill ...	1023.3	-10	ENE	3	b	35	92	2	5	-	-	10	10	<150
	Plymouth ...	1023.1	-10	E	1	b	42	75	7	-	-	-	0	0	-
	The Lizard ...	1022.5	-4	E'N	3	bc	46	75	8	8	-	-	4-6	4-6	2500
	Scilly (St. Mary's)	1022.2	-4	ENE	3	c	47	75	7	8	8	-	2-3	9+	2500
	Guernsey ...	1022.2	-6	NE'E	1	c	44	85	6	5	2	-	7-8	10	2500
6	Pembroke ...	1024.1	-10	—	0	bc	43	85	6	5	4	-	2-3	2-3	1500
7	Holyhead ...	1023.4	-6	SSW	2	bc	43	85	7	2	3	-	2-3	2-3	2500
	Chester (Sealand)	1022.8	-6	NWW	2	c	48	75	7	5	3	-	7-8	9	5700
8	Manchester ...	1022.0	-18	W	4	zo	47	92	6	5	-	-	7-8	7-8	4000
10	Spurn Head ...	1019.0	-8	WW	4	m	44	85	4	-	3	8	0	4-6	-
	Catterick ...	1018.6	-14	WNW	3	bc	43	75	7	-	9	-	0	7-8	-
	Tynemouth ...	1018.7	-8	W	3	bc	48	65	6	8	3	-	2-3	4-6	2500
11	St. Abbs Head	1016.5	0	WNW	4	c	49	75	8	8	6	-	7-8	10	1500
	Leuchars ...	1016.1	-8	WSW	4	c	50	75	8	5	7	-	7-8	9	4000
12	Renfrew (Abbots I.)	1019.2	-2	W	3	pr	48	92	6	8	2	-	9+	10	1500
	Eskdalemuir ...	1018.8	-8	W	3	c	47	85	8	5	-	-	9+	9+	1500
	Point of Ayre ...	1022.1	-4	NW'W	4	c	48	85	8	5	7	-	2-3	9	2500
13A	Tiree ...	1019.8	0	NWW	4	c	50	85	7	5	7	-	4-6	9	1500
13B	Stornoway ...	1016.3	+4	W	5	c	50	92	7	5	5	-	4-6	9	2500
15	Dalwhinnie ...	1018.1	+2	W	3	c	46	85	7	4	5	-	4-6	9+	2500
	Aberdeen ...	1014.2	-2	WNW	4	c	51	75	8	5	7	-	4-6	9	4000
	Wick ...	1012.4	+16	WNW	3	iro	49	92	6	5	2	-	4-6	10	800
16	Lerwick...	1013.0	-8	ENE	4	o	36	85	8	5	-	-	10	10	1500
17	Blacksod Point..	1023.4	+2	—	0	b	48	92	8	-	3	-	0	Tr	-
18	Malin Head ...	1022.5	0	W	2	c	49	85	8	8	7	-	7-8	9	4000
	Aldergrove ...	1023.3	-6	SSW	3	F-	39	97	1	-	-	-	10	10	<150
19	Birr Castle ...	1025.1	*	S	1	c	33	85	7	5	1	-	7-8	10	2500
20	Valentia Obsy. †	1024.3	-6	—	0	b	39	75	8	-	-	-	0	0	-
	Roches Point ...	1024.3	-4	N'E	3	zo	38	85	6	-	-	-	0	0	-

OBSERVATIONS at 18h. G.M.T. 24th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1022.3	-6	W	1	F+	31	97	0	-	-	-	10	10	<150	3	*
Croydon	1022.8	-4	—	0	m	32	97	4	-	-	-	0	0	—	1	*
S. Farnborough	1022.6	-2	—	0	bF	29	97	0	-	-	-	0	0	-	1	*
Boscombe Down	1022.8	-2	N	2	bf+	33	97	2	-	-	-	0	0	—	1	*
Calshot (Soton.)	1022.6	-6	WNW	1	F	29	97	0	-	-	-	10	10	<150	3	1
Lympne	1022.4	-4	N'W	2	bf+	33	97	3	-	-	-	0	0	-	3	§ 0
Manston	1021.6	+2	NW'W	3	zo	36	85	5	-	-	-	0	0	-	1	*
Shoeburyness	1021.9	-2	W	2	bF	34	92	1	-	-	-	0	0	-	1	*
Felixstowe	1021.0	-2	W'N	1	m	36	92	4	-	3	-	0	9	-	1	2
Gorleston	1020.2	-2	SW'W	2	bc	36	92	5	5	-	-	2-3	2-3	2500	0	2
Mildenhall	1020.8	-4	SW	3	m	35	97	4	5	-	-	9+	9+	2500	1	*
Cranwell	1020.5	-14	WSW	2	cf+	40	92	2	5	-	-	10	10	4000	0	*
Birmingham	1022.4	0	NW	3	zo	39	85	5	-	-	-	0	0	—	1	*
Upper Heyford	1022.7	-2	SSE	1	zo	35	97	5	-	3	-	0	Tr	-	1	*
Ross-on-Wye	1022.6	0	SW	1	bf+	32	97	2	-	-	-	0	0	-	1	*
Hartland Point	1021.8	-8	ENE	2	b	42	75	7	-	-	-	0	0	-	0	2
Bristol	1023.4	-2	—	0	F+	30	97	0	-	-	-	10	10	<150	1	*
Portland Bill	1022.2	-8	E	2	b	35	92	7	-	-	-	0	0	-	1	2
Plymouth	1022.1	-6	ENE	1	m	37	85	4	-	-	-	0	0	-	1	2
The Lizard	1021.4	-8	E'N	4	c	43	65	7	8	2	-	7-8	10	1500	0	3
Scilly (St. Mary's)	1021.3	0	ENE	3	c	43	75	7	8	6	-	4-6	9+	1500	1	3
Guernsey	1020.6	-4	NE'E	1	c	44	85	6	8	1	-	7-8	10	2500	0	2
Pembroke	1022.2	-4	ENE	2	b	41	92	7	-	-	-	0	0	-	1	1
Holyhead	1023.0	+2	W	2	bc	45	92	6	5	3	-	1	4-6	2500	1	1
Chester (Sealand)	1022.1	+2	WNW	3	zo	45	75	6	5	3	-	4-6	7-8	4000	1	*
Manchester	1021.7	-2	N'N	1	zo	44	92	6	5	-	-	9+	9+	4000	1	*
Spurn Head	1018.9	0	W	3	m	42	92	4	-	-	7	0	10	-	0	2
Catterick	1018.7	+2	WNW	3	bc	46	85	7	5	9	9	Tr	4-6	4000	1	*
Tynemouth	1018.8	+4	W	3	bc	45	92	6	2	-	-	4-6	4-6	2500	1	2
St. Abbs Head	1016.0	+4	WNW	5	bc	49	85	8	7	4	-	2-3	4-6	2500	0	3
Leuchars	1016.7	+6	WSW	2	c	[illegible]	85	8	8	3	-	2-3	7-8	5700	1	*
Renfrew (Abbots I.)	1019.4	+2	W'N	3	zo	48	85	6	8	7	-	7-8	9+	1500	1	*
Eskdalemuir	1019.2	0	WN	4	c	46	85	7	5	-	-	7-8	7-8	1500	1	*
Point of Ayre	1021.8	+6	NWW	4	c	47	92	7	5	3	-	4-6	9+	2500	0	2
Tiree	1019.7	0	WNW	4	b	48	85	8	-	3	-	0	1	-	0	3
Stornoway	1016.4	+2	W	5	pr	49	92	6	5	7	-	7-8	9+	2500	1	3
Dalwhinnie	1018.0	+2	WSW	3	c	45	85	7	4	6	-	7-8	9	2500	0	*
Aberdeen	1014.3	+4	WNW	4	c	50	75	7	5	7	-	2-3	9	4000	0	1
Wick	1012.7	+4	W	4	roro	48	92	6	5	2	-	7-8	10	800	1	2
Lerwick	1013.2	0	NWN	2	c	38	92	8	5	2	-	4-6	10	1500	1	*
Blacksod Point	1024.1	0	—	0	b	43	97	7	-	-	-	0	0	-	0	2
Malin Head	1022.5	+6	W	3	bc	46	75	8	4	-	-	2-3	2-3	5700	0	3
Aldergrove	1023.1	+2	SSW	2	zo	38	97	6	5	-	-	7-8	7-8	4000	1	*
Birr Castle	1024.5	*	ENE	1	of+	31	92	3	5	-	-	10	10	2500	3	*
Valentia Obsy. †	1023.1	-4	E'W	1	b	33	92	8	-	-	-	0	0	-	5	2
Roches Point	1023.4	0	NNE	2	zo	37	92	5	-	-	-	0	0	-	1	!

PAST 24 HOURS.

Stations	Weather 7h.–18h. 24th (37)	Weather 13h.–18h. 24th (38)	Weather 18h. 24th to 1h. 25th (39)	Weather 1h.–7h. 25th (40)
London (Kew)	oFeFex	Fx	oFFx	oFFx
Croydon	FxbF	boFbm	bmfcfmx	cmbccmx
S. Farnborough	oFebf	bfoFbF	boFxc	cofxm
Boscombe Down	bfFfm	bmof	bmjfbmjf	cm fof
Calshot (Soton.)	FFb	bFF	oFFx	bFFoff
Lympne	cfxbcmo	bzomof	bfx	bfxbfx
Manston	Ffbmo	bmo	bmobf	bmobcbf
Shoeburyness	F	ffbff	FF	FFx
Felixstowe	bmbcm	bmocmo	bbx	bmcbm
Gorleston	offebcm	bcmzo	bczox	bcmoFf
Mildenhall	bfx cmbm	bmocfcm	cmf bf	bcmcmo
Cranwell	cbccmo	bmo, cmf	cff	cff, bwm
Birmingham	bcbz	bz	bbc	bcb
Upper Heyford	ffbcm	bcmbcm	mbcmbfcf	cjfcmfm
Ross-on-Wye	bm cmbm	bmo bmf	bfFxbcf	bmx
Hartland Point	bcb	b	bx	bbcc
Bristol	oFe	oFe	oFex	oFecdmx
Portland Bill	off	bcb	b	bbc
Plymouth	bcmmbm	bzomo	bmfmx	bmomx
The Lizard	cbc	bcc	c	bc
Scilly (St. Mary's)	bcc	bcc	c	cbc
Guernsey	c	c	cbc	cbc
Pembroke	fbc	bcb	bx	bbcw
Holyhead	cmobc	bcbbc	bcbwc	bcbwcbc
Chester (Sealand)	cbccmofc	bcccmo	cbccbcmg	bccbcmow
Manchester	czczo	cmo	cmoc	ccmo
Spurn Head	cm	cm	bcmbw	cmo
Catterick	bccbc	bccbc	cbcb	bbcb
Tynemouth	bc	bc	bc	bcc
St. Abbs Head	iroc	irobc	bc	c
Leuchars	c	cbc	cbcc	c
Renfrew (Abbots I.)	cmopcpc	cpccm	cmobcb	bbc
Eskdalemuir	cpr	crorc	cbc	bc
Point of Ayre	c	c	cbcc	bcc
Tiree	irldc	cbc		bbcc
Stornoway	crоro	cpro	c	crrmo
Dalwhinnie	c	c	*	c
Aberdeen	bcc	c	cczo	czo
Wick	c,iro	romo	rrmir	irRr
Lerwick	co	oc	cssirs	cirsss
Blacksod Point	bc	b	ff	ff
Malin Head	c	cbc	bcc	c
Aldergrove	b,cmfF	Fbcmocm	cmoFFe	FeFcmo
Birr Castle	c	off		offx
Valentia Obsy. †	bxb	bbx	bx	bxbcx
Roches Point	bxbzo	bzo	cmx	bcb

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_o, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_o/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
Solar halo. lunar halo. Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

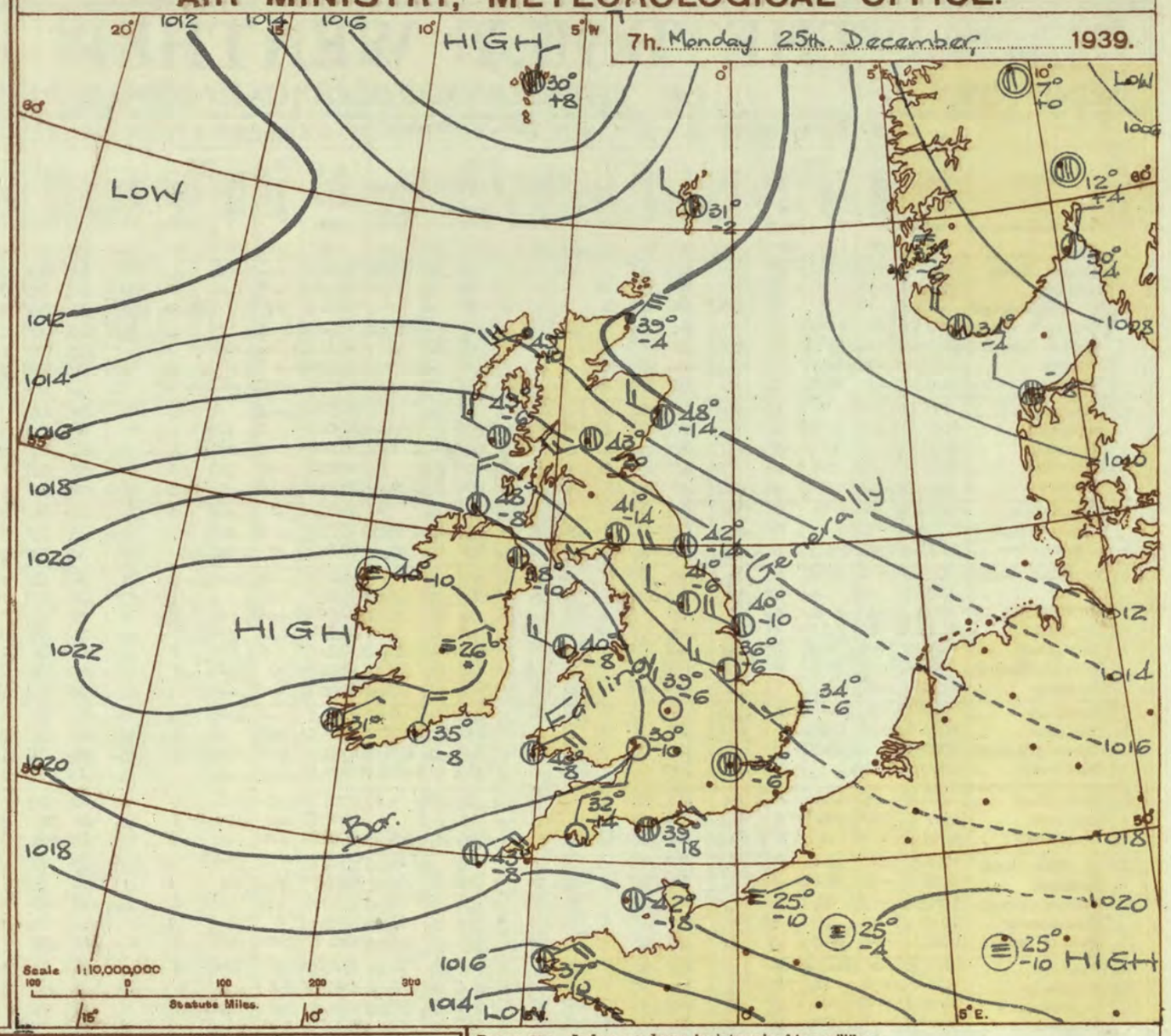
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Monday 25th December 1939.



Districts.	Forecasts for the 24 hours commencing 12 noon, G.M.T. 25th December, 1939.
1 S.E. England 2 E. England ...	Winds light variable; fair, apart from fog locally; local ground frost tonight, rather cold by day.
3 E. Midlands ...	Winds northwest, moderate; fair, apart from fog locally; rather cold.
4 W. Midlands ...	Winds northwest, moderate; fair; average temperature.
5 S.W. England 6 South Wales ...	Winds northeast or east, moderate; fair; average temperature.
7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England	As 3 - 4.
11 S.E. Scotland 12 S.W. Scotland & Isle of Man. 13 A. W. Scotld. / B.N.W. Scotland.	Winds westerly, moderate or fresh; cloudy; mild.
13 A. W. Scotld. / B.N.W. Scotland.	Winds westerly, fresh or strong; rain today; mild.
14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Winds westerly, fresh or strong, but northeast to east fresh or strong in the north; appreciable rain or sleet; mild in the south, cold in the north.
17 N. W. Ireland	Winds between north and east, moderate; appreciable rain or sleet; rather cold.
18 N. E. Ireland	Winds westerly, moderate; fair; average temperature.
19 S. E. Ireland 20 S. W. Ireland	As 5 - 6.

Barometer. Isobars are drawn for intervals of two millibars.
Wind, Weather Symbols. For explanation see opposite page.
Sea Disturbance. ~~ Rough. ≈≈ High.
Barometric Change from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

A belt of high pressure extends from Ireland to the Balkans and a trough of low running east and west through Northern Scotland is almost stationary. Except in Northern Scotland where there will be rain or sleet the weather will be mainly fair with temperature about the average for the time of year. In Southern England patches of fog may persist all day.

FURTHER OUTLOOK.

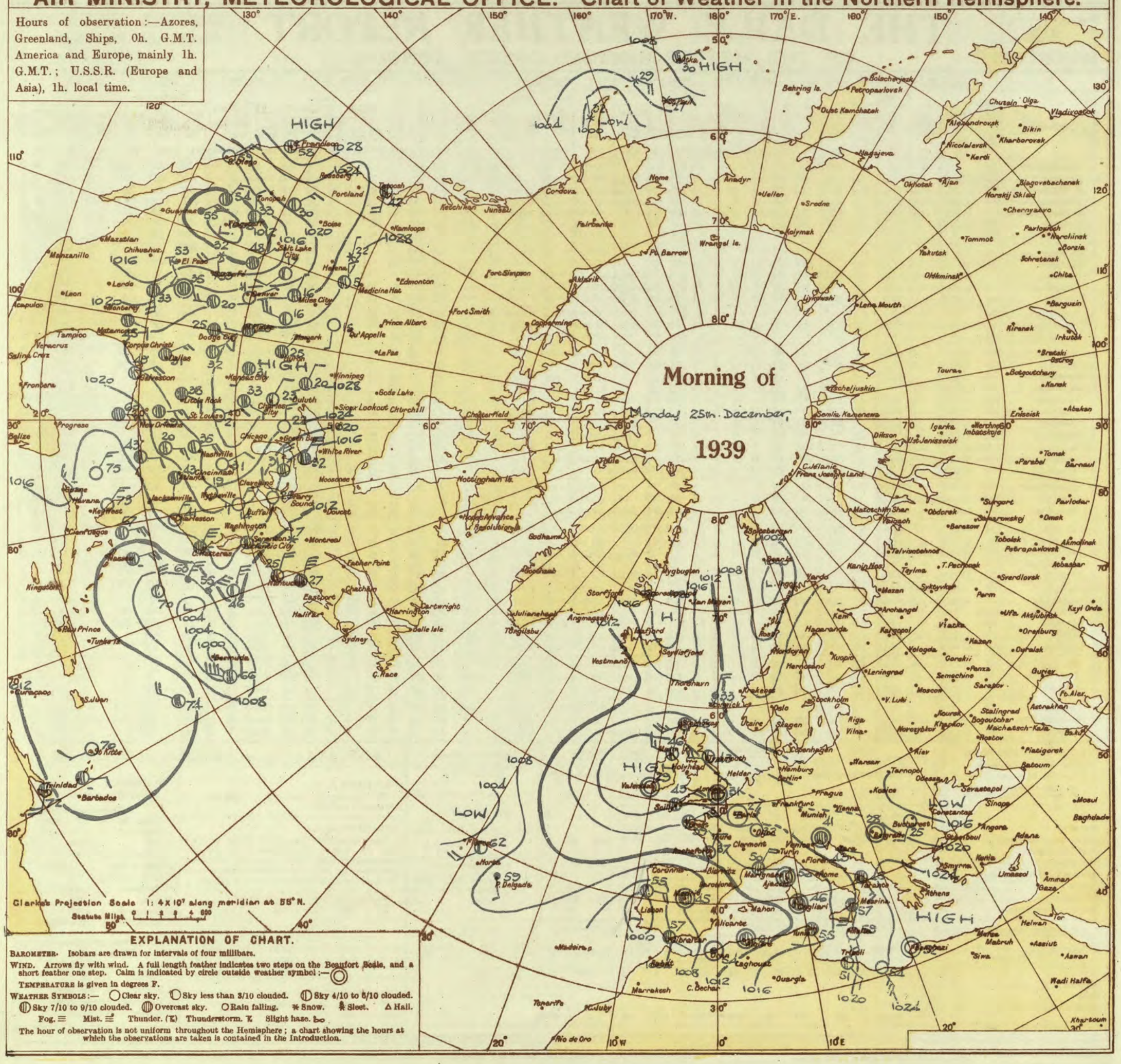
Little change, apart from improving conditions in North Scotland.

Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Monday, 25th December 1939.

No. 28,582

OBSERVATIONS at 1 hr. G.M.T. 25th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud. Form. Low. (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1021.2	-6	—	0	≋	31	97	4	5	—	—	9	9	5700
	S. Farnborough	226	1023.3	-10	—	0	cf+	26	97	1	5	—	—	9+	9+	7200
	Boscombe Down	417	1021.6	-6	NNW	2	bc	31	92	5	5	—	—	2-3	2-3	2500
	Calshot (Sthmtn.)	8	1021.1	-10	NNW	2	bc	30	97	0	—	—	—	0	0	—
	Lympne ...	346	1020.3	-2	NNW	3	bc	32	92	3	—	—	—	0	0	—
	Manston ...	154														
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1019.0	-12	N	1	2	35	97	5	—	—	—	0	0	—
	Gorleston ...	5	1016.7	-8	NS	2	bc	34	92	5	5	—	—	2-3	2-3	2500
	Mildenhall ...	19	1019.5	-6	SW	2	m/f	35	97	4	5	—	—	4-6	4-6	4000
	Cranwell ...	240	1019.4	-6	NN	2	cf+	41	97	3	5	—	—	9+	9+	5700
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1020.8	-14	NW	2	cf	36	92	5	5	—	—	10	10	5700
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1021.1	-6	ENE	2	b	40	85	7	—	—	—	0	0	—
	Bristol ...	209	1022.2	-6	—	0	F-	26	97	1	—	—	—	10	10	<150
	Portland Bill ...	32	1020.8	-8	ENE	2	b	38	85	8	—	—	—	0	0	—
	Plymouth ...	82	1020.3	-6	—	0	m/f	32	92	4	—	—	—	0	0	—
	The Lizard ...	240	1019.8	-8	ENE	4	c	43	85	8	8	—	—	7-8	7-8	1500
	Scilly (St. Mary's)	163	1020.2	-6	NE'E	4	c	43	85	6	8	6	—	2-3	7-8	2500
	Guernsey ...	175	1019.6	-12	ENE	1	c	43	85	6	8	—	—	3	3	2500
6	Pembroke ...	142	1022.8	+2	NE	3	b	41	85	7	5	—	—	1	1	2500
7	Holyhead ...	26	1021.7	-6	NW'W	2	c	45	85	8	5	—	—	9	9	4000
	Chester (Sealand)	16	1021.3	-4	WNW	2	2	43	97	6	5	7	—	4-6	4-6	2500
8	Manchester ...	70	1020.8	-2	NW	1	c	44	92	7	5	—	—	7-8	7-8	4000
10	Spurn Head ...	29	1018.4	-4	W'N	3	≋	40	97	4	—	—	—	0	0	—
	Catterick ...	175	1016.6	-4	NNW	1	b	41	85	8	—	—	—	0	Tr	—
	Tynemouth ...	108	1018.5	-2	W	4	bc	43	92	6	2	—	—	4-6	4-6	2500
11	St. Abbs Head	280	1016.1	-2	WNW	5	bc	47	75	7	7	6	—	4-8	4-6	2500
	Leuchars ...	36	1016.2	-6	WSW	3	c	44	85	8	—	3	—	0	7-8	—
12	Renfrew (Abbots I.)	19	1019.1	-4	SWW	3	b	44	85	7	5	—	—	1	1	4000
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre...	30	1021.5	0	WNW	3	c	45	97	7	5	—	—	9+	9+	2500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1015.9	-6	WSW	5	c	48	85	7	5	7	—	7-8	9+	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1012.3	-2	N	2	ir	48	92	6	5	2	—	7-8	10	800
16	Lerwick ...	156	1014.0	+4	NNE	4	rs	33	97	6	6	2	—	4-6	10	450
17	Blacksod Point	18	1023.2	-4	—	0	of	40	97	3	—	2	—	10	10	<150
18	Malin Head ...	84	1021.1	-6	W'N	3	c	46	92	7	—	7	—	0	7-8	—
	Aldergrove ...	268	1022.4	-6	SW	2	F	36	97	1	—	—	—	10	10	<150
19	Birr Castle ...	173														
20	Valentia Obsy.	30	1022.5	-6	—	0	b	23	92	8	—	—	—	0	0	—
	Roches Point	22	1022.8	-2	NNE	3	m	35	97	4	5	—	—	7-8	7-8	2500

OBSERVATIONS at 7 hr. G.M.T. 25th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low. (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1019.1	-6	—	0	F-	34	97	1	—	—	—	10	10	<150	5	*
	Croydon ...	1019.7	-6	—	0	Z0	38	85	5	5	—	—	10	10	4000	3	*
	S. Farnborough	1019.2	-28	W'N	1	≋	34	97	4	5	—	—	10	10	4000	3	*
	Boscombe Down	1019.7	-10	NNW	2	0f	31	97	3	5	—	—	10	10	1500	1	*
	Calshot (Sthmtn.)	1019.0	-10	NNW	1	cf+	34	97	4	5	—	—	10	10	2500	2	1
	Lympne ...	1019.3	-6	NNW	2	cf+	32	97	3	5	—	—	9	9	2500	3	§ 0
	Manston ...	1018.5	-6	WNW	1	bf	30	92	3	—	—	—	0	0	—	3	*
2	Shoeburyness ...	1019.1	-8	NW	1	F-	35	92	1	—	—	—	10	10	<150	5	*
	Felixstowe ...	1017.3	-6	NW	2	F	34	97	4	—	—	—	0	0	—	3	2
	Gorleston ...	1017.2	-6	W'S	3	F	34	85	1	—	—	—	10	10	<150	3	1
	Mildenhall ...	1018.0	-6	SW	2	≋	35	97	4	5	—	—	10	10	2500	1	*
	Cranwell ...	1018.0	-6	W'N	3	≋	36	97	4	5	—	—	1	1	5700	0	*
3	Birmingham ...	1019.5	-6	NNW	3	b	39	97	6	3	—	—	1	1	450	1	*
	Upper Heyford	1019.4	-8	NW	2	≋	38	97	4	5	—	—	10	10	450	1	*
4	Ross-on-Wye	1020.1	-10	SSW	1	bf	30	97	5	5	—	—	Tr	Tr	2500	1	*
5	Hartland Point	1019.4	-10	NE	1	c	40	92	7	5	—	—	7-8	7-8	4000	0	2
	Bristol ...	1020.3	-10	—	0	0f+	30	97	3	5	—	—	10	10	2500	1	*
	Portland Bill ...	1018.1	-18	ENE	2	c	39	92	8	5	4	—	4-6	7-8	4000	1	2
	Plymouth ...	1019.1	-14	ENE	1	Z0	32	92	5	—	—	—	0	0	—	3	1
	The Lizard ...	1017.9	-12	ENE	3	bc	43	85	8	8	—	—	4-6	4-6	2500	0	2
	Scilly (St. Mary's)	1018.5	-8	NE'E	4	bc	43	85	7	8	—	—	2-3	2-3	2500	1	3
	Guernsey ...	1017.7	-16	ENE	1	bc	42	85	6	1	2	—	1	2-3	2500	0	2
6	Pembroke ...	1020.1	-8	NE	4	bc	40	92	8	5	6	—	2-3	4-6	2500	1	1
7	Holyhead ...	1020.2	-8	NW'W	3	b	45	92	7	5	—	—	1	1	4000	1	1
	Chester (Sealand)	1020.3	-6	W'N	1	Z0	40	92	6	5	—	—	7-8	7-8	2500	1	*
8	Manchester ...	1019.8	-8	WNW	2	≋	41	97	6	5	3	—	4-6	9	4000	1	*
10	Spurn Head ...	1017.0	-10	NW'W	4	bc	40	92	6	—	9	—	0	4-6	—	0	2
	Catterick ...	1017.7	-6	NW'W	2	bc	41	75	8	—	9	—	0	2-3	—	1	*
	Tynemouth ...	1017.0	-14	W	4	c	42	85	6	2	3	—	4-6	7-8	2500	1	2
11	St. Abbs Head	1014.2	-12	WNW	5	c	45	65	8	5	3	—	4-6	7-8	2500	0	3
	Leuchars ...	1014.2	-16	WSW	3	c	43	85	8	5	—	—	9	9	4000	1	*
12	Renfrew (Abbots I.)	1016.9	-14	WSW	2	bc	42	85	7	5	2	—	4-6	4-6	4000	1	*
	Eskdalemuir ...	1017.2	-14	WSW	1	bc	41	85	8	5	—	—	2-3	2-3	1500	1	*
	Point of Ayre...	1019.1	-12	NW	4	c	45	92	8	5	—	—	9+	9+	2500	0	3
13A	Tiree	1017.4	-6	WNW	4	c	49	85	7	5	—	—	9+	9+	2500	0	3
13B	Stornoway ...	1014.4	-10	WSW	6	rr	49	97	5	5	2	—	9	10	1500	1	3
15	Dalwhinnie ...	1015.4	-20	WSW	3	c	43	75	7	4	7	—	4-6	7-8	2500	0	*
	Aberdeen ...	1011.9	-14	WNW	3	c	46	75	7	5	7	—	7-8	9	2500	0	1
	Wick ...	1011.4	-4	NE	6	RR	39	97	6	5	2	—	9	10	800	1	3
16	Lerwick ...	1013.7	-2	NW'N	2	c	31	97	6	5	2	—	4-6	10	450	8	*
17	Blacksod Point	1022.6	-10	—	0	m/f	40	97	4	—	2	—	10	10	<150	1	2
18	Malin Head ...	1020.0	-8	NNW	3	c	48	85	7	8	—	—	7-8	7-8	4000	0	3
	Aldergrove ...	1020.7	-10	SW	1	Z0	38	97	5	5	—	—	10	10	4000	1	*
19	Birr Castle ...	1023.1	*	ENE	1	of	26	97	3	5	—	—	10	10	2500	3	*
20	Valentia Obsy.	1021.1	-6	ENE	2	c	31	92	8	5	—	1	2-3	7-8	4000	5	2
	Roches Point	1020.9	-8	NNE	3	b	35	92	7	5	—	—	Tr	Tr	4000	1	2

PAST 24 HOURS.

Stations	Temperature. Max. Day 7h–18h °F.	Min. Night 18h–7h °F	Min. on Grass °F.	Rainfall. Day 7h–18h mm.	Night 18h–7h mm.	Sunshine 24h Hrs. (36)
London (Kew)	35	29	28	Tr	Tr	0.0
Croydon ...	32	29	22	—	—	0.3
S. Farnborough	40	21	20	0.1	Tr	2.8
Boscombe Down	41	29	22	0.2	—	4.6
Calshot (Sthmtn.)	35	28	28	—	—	0.0
Lympne ...	44	31	21	0.3	—	5.9
Manston ...	40	29	24	0.1	Tr	4.7
Shoeburyness ...	37	32	*	—	—	1.6
Felixstowe ...	43	34	30	—	—	5.8
Gorleston ...	40	32	30	—	—	*
Mildenhall ...	39	33	26	0.1	—	2.8
Cranwell ...	41	36	33	—	Tr	3.7
Birmingham ...	44	38	32	*	—	4.1
Upper Heyford	41	28	17	Tr	—	*
Ross-on-Wye	41	23	18	—	—	4.5
Hartland Point	43	39	35	—	—	6.8
Bristol ...	36	25	23	—	—	0.0
Portland Bill ...	35	30	*	—	—	*
Plymouth ...	43	31	23	—	—	*
The Lizard ...	46	41	*	—	—	3.0
Scilly (St. Mary's)	48	41	*	—	—	3.2
Guernsey ...	45	41	33	—	—	0.0
Pembroke ...	46	38	*	—	—	5.7
Holyhead ...	50	42	33	—	—	3.7
Chester (Sealand)	49	40	35	—	—	1.5
Manchester ...	47	37	35	—	—	0.2
Spurn Head ...	44	39	*	—	—	2.7
Catterick ...	49	39	27	—	—	4.3
Tynemouth ...	48	40	35	—	—	*
St. Abbs Head	50	43	*	Tr	*	*
Leuchars ...	50	41	36	—	—	0.0
Renfrew (Abbots I.)	48	41	35	0.4	—	0.0
Eskdalemuir ...	47	40	35	0.2	—	0.0
Point of Ayre...	50	43	*	—	—	3.6
Tiree	50	46	42	2	—	0.0
Stornoway ...	50	48	*	2	3	0.0
Dalwhinnie ...	47	42	38	Tr	—	0.0
Aberdeen ...	51	47	43	—	—	0.1
Wick ...	49	39	*	2	21	*
Lerwick ...	36	31	*	—	2	0.0
Blacksod Point	50	36	*	—	3	*
Malin Head ...	50	42	*	—	—	1.8
Aldergrove ...	41	34	34	—	—	1.2
Birr Castle ...	34	25	25	—	—	0.0
Valentia Obsy.	43	28	19	0.1	Tr	6.1
Roches Point	43	34	*	—	Tr	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h. other stations except for rainfall which is 9h—18h.

	Height above M.S.L. in feet.	Weather. Morning. (24 hrs. ended 9h.)	Afternoon.	Night.	Temperature. Day Max. °F.	Night Min. °F.	Min. on Grass °F.	Rainfall. Day. mm.	Night. mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity. 15h. G.M.T. % (Yesterday.)	9h. G.M.T. % (To-day.)	Visibility 9h. (To-day.)
Kew...	18	defex	Fx	offx	35	29	28	Tr	Tr	0.0	•	•	2
Croydon	217	FxbF	bofbm	bmfmx	32	29	22	—	—	0.3	•	•	*
Greenwich (Royal Observatory)...	149	FeFex	fefex	ffebof	34	29	24	Tr	Tr	0.0	100	34	2
City (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park) ...	27	•	•	•	35	31	30	—	—		98	91	•
Regents Pk. (Botanic Gardens)‡...	168	•	•	•						0.0			•
Camden Square	110	of	bcf	•	36	31	28	—	—	•	•	36	•
Kensington	80	f	f	•	34	30	28	Tr	Tr		98	95	•
Hampstead Observatory	450	bcx	bcx	of	37	29	27	—	—		•	98	•

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T... 25th

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.
1.0	18-20h 24th	0.1	7-8h 24th

FOREIGN OBSERVATIONS.

Stations.	18h. G.M.T. 24th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	7h. G.M.T. 25th December. Barom. mb.	Wind. Direc.	Wind. Force.	Weather.	Temp. °F.	Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall. Day mm.	Rainfall. Night mm.
Paris	1021.9	NNW	1	F	28	1019.4	-	0	f+	25	36	25	-	-
Brussels														
Berlin														
Zürich														
Rome	1019.7	SE	6	c	54	1013.4	ESE	4	c	54	•	•	11	1

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 — Code for surface visibility.

		Objects not visible at
0	Dense fog	55 yards.
1	Thick fog	220 „
2	Fog	550 „
3	Moderate fog	1,100 „
4	Mist or haze	1¼ miles.
5	Poor visibility	2½ „
6	Moderate „	6½ „
7	Good „	12½ „
8	Very good „	31 „
9	Excellent „	beyond 31m.

COLUMN 30 — Code for State of Sea.

0	Calm.	5	Very rough.
1	Smooth.	6	High.
2	Slight.	7	Very high.
3	Moderate.	8	Preciptious.
4	Rough.	9	Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Tuesday. 26th. December 1939.

No. 28,523

OBSERVATIONS at 13h. G.M.T. 25th December

District	Stations. (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility. 0–9 (8)	Cloud Form. Low. (9)	Med. (10)	High (11)	Amount. Low 0–10 (12)	Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)...	1017.4	-16	NWN	2	m	39	97	4	5	-	-	9+	9+	1500
	Croydon ...	1018.1	-14	-	0	F	36	97	0	-	-	-	10	10	<150
	S. Farnborough	1017.8	-18	WNW	2	m/f	38	97	4	5	-	-	10	10	450
	Boscombe Down	1018.0	-18	N'W	3	zo	41	85	6	-	-	-	0	0	-
	Calshot (Soton.)	1017.7	-14	N	3	of-	38	97	3	5	-	-	10	10	800
	Lympne ...	1017.4	-18	NNW	2	m	38	92	4	5	-	-	10	10	1500
	Manston ...	1016.6	-18	W	2	of	41	85	3	5	3	1	2-3	7-8	1500
2	Shoeburyness ...	1017.1	-14	WN	1	bf	40	92	3	-	-	-	0	0	-
	Felixstowe ...	1016.2	-14	NW'W	2	zo	42	85	5	-	-	5	0	2-3	-
	Gorleston ...	1016.1	-14	W'N	3	bcf	36	92	3	-	5	-	0	4-6	-
	Mildenhall ...	1016.8	-14	WSW	2	m	38	92	4	5	3	1	7-8	9+	4000
	Cranwell ...	1016.5	-18	SW'W	2	zo	42	85	5	5	-	2	Tr	4-6	5700
3	Birmingham	1018.2	-10	NNW	2	m	41	92	4	-	-	-	0	0	-
	Upper Heyford	1018.3	-14	NWW	4	f	38	97	3	-	-	-	10	10	<150
4	Ross-on-Wye ...														
5	Hartland Point	1018.1	-16	NE	2	bc	42	92	8	4	-	-	4-6	4-6	4000
	Bristol ...	1018.6	-18	-	0	m	40	97	4	5	-	-	4-6	4-6	800
	Portland Bill ...	1017.0	-20	NE	2	c	42	92	6	2	-	-	10	10	4000
	Plymouth ...	1017.5	-18	NE'E	2	bcjf	46	75	7	5	-	-	2-3	2-3	2500
	The Lizard ...	1016.8	-4	E'N	4	bc	46	85	8	4	-	-	2-3	2-3	2500
	Scilly (St. Mary's)	1017.4	-10	NE'E	4	bc	47	75	8	5	-	-	2-3	2-3	2500
	Guernsey ...	1016.2	-14	ENE	1	b	46	75	8	1	-	-	Tr	Tr	2500
6	Pembroke ...	1019.5	-14	NE	2	bc	46	75	8	1	-	-	2-3	2-3	4000
7	Holyhead ...	1018.7	-14	WNW	3	c	47	85	8	5	-	-	10	10	4000
	Chester (Sealand)	1018.3	-16	WNW	3	bc	46	85	7	5	4	-	4-6	4-6	2500
8	Manchester ...	1018.0	-18	WNW	2	zo	45	92	6	5	-	-	9+	9+	1500
10	Spurn Head ...	1014.8	-14	WNW	4	c	44	85	6	-	3	3	0	9+	-
	Catterick ...	1014.6	-20	WNW	1	c	47	75	7	-	7	-	0	9	-
	Tynemouth ...	1014.6	-12	W	3	c	45	75	6	2	3	-	4-6	7-8	2500
11	St. Abbs Head	1012.0	-14	WNW	6	cq	49	65	8	4	5	2	4-6	9+	2500
	Leuchars ...	1012.5	-14	WNW	3	c	48	75	8	4	7	-	2-3	10	4000
12	Renfrew (Abbots I.)	1015.8	-10	WNW	5	c	50	75	7	5	7	-	9	10	2500
	Eskdalemuir ...	1015.3	-6	WNW	2	c	47	75	7	5	-	-	9	9	1500
	Point of Ayre ...	1017.8	-10	NW	5	c	48	92	8	5	-	2	Tr	9	1500
13A	Tiree ...	1016.9	-4	NW	4	c	50	85	7	5	-	-	7-8	7-8	2500
13B	Stornoway ...	1014.7	0	NNE	3	o/r	44	97	6	5	-	-	10	10	1500
15	Dalwhinnie ...	1014.0	-12	WSW	4	ro	46	92	7	5	2	-	4-6	10	2500
	Aberdeen ...	1013.1	+14	N	2	c/r	42	97	6	6	7	-	7-8	10	800
	Wick ...	1014.1	+6	NNW	3	c/r	39	92	8	5	7	-	7-8	10	1500
16	Lerwick...	1013.5	-2	NW	4	c	33	85	8	8	7	-	4-6	10	800
17	Blacksod Point..	1022.0	-8	-	0	df	39	97	3	-	2	-	0	10	-
18	Malin Head ...	1019.1	-10	WNW	2	c	49	85	8	5	7	7	4-6	7-8	4000
	Aldergrove ...	1019.7	-10	W	2	zo	43	92	6	-	3	2	0	9	-
19	Birr Castle ...	1022.4	"	S	1	of	28	97	3	5	-	-	10	10	2500
20	Valentia Obsy. †	1020.9	-10	ENE	1	b	43	65	8	5	-	-	Tr	Tr	4000
	Roches Point ...	1020.7	-10	NNE	3	b	43	85	8	-	-	-	0	0	-

OBSERVATIONS at 18h. G.M.T. 25th December

Stations.	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form. Low. (23)	Med. (24)	High (25)	Amount Low 0–10 (26)	Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
London (Kew)	1016.2	-4	WSW	2	F+	33	92	1	-	-	-	10	10	<150	1	*
Croydon	1016.8	-2	-	0	F	36	97	1	-	-	-	10	10	<150	1	*
S. Farnborough	1016.8	-4	WSW	2	F+	33	92	1	-	-	-	10	10	<150	3	*
Boscombe Down	1017.3	+8	N'W	1	bf+	35	97	2	-	1	-	0	Tr	-	1	*
Calshot (Soton.)	1017.1	-2	NWN	1	f	38	97	2	-	-	-	10	10	<150	1	1
Lympne	1016.6	-6	NNW	2	F	32	97	1	-	-	-	10	10	<150	3	§1
Manston	1015.3	-6	NW	3	F	34	97	0	-	-	-	10	10	<150		*
Shoeburyness	1016.0	-4	W	1	F	36	97	1	-	-	-	10	10	<150	1	*
Felixstowe	1014.7	-2	SW	2	m	36	97	4	-	3	6	0	7-8	-	1	2
Gorleston	1014.1	-6	W	3	c	37	85	5	5	-	-	7-8	7-8	2500	1	2
Mildenhall	1014.8	-6	SW	3	m	35	97	4	5	-	-	7-8	7-8	4000	1	*
Cranwell	1014.8	-6	W	2	m	38	92	4	-	-	8	0	7-8	-	0	*
Birmingham	1016.2	-10	NW	3	cjf	42	92	5	6	5	-	4-6	9+	2500	1	*
Upper Heyford	1016.9	-2	NW	3	m	37	97	4	-	-	-	0	0	-	1	*
Ross-on-Wye	1017.3	-8	SW'S	2	zo	34	92	5	5	-	1	Tr	Tr	1500	1	*
Hartland Point	1017.2	0	NE	1	b	43	85	8	-	-	-	0	0	-	0	2
Bristol	1017.5	-2	-	0	bf	33	97	2	-	-	-	0	0	-	1	*
Portland Bill	1016.6	+2	NE	2	b	41	92	8	-	-	-	0	0	-	1	2
Plymouth	1017.3	-6	E	1	zo	42	75	6	-	3	-	0	2-3	-	1	1
The Lizard	1017.1	0	E	3	c	45	85	8	8	-	-	9+	9+	2500	0	2
Scilly (St. Mary's)	1016.8	+2	NE'E	3	bc	45	85	7	4	-	-	4-6	4-6	2500	1	2
Guernsey	1015.8	0	NE'E	1	b	44	85	9	1	3	-	Tr	1	2500	0	2
Pembroke	1020.5	+2	NE	3	c	40	97	6	5	-	-	10	10	2500	1	+
Holyhead	1017.7	-2	NWW	4	bc	46	92	8	5	-	-	2-3	2-3	5700	1	2
Chester (Sealand)	1016.8	-6	NW	3	zo	43	92	6	5	3	-	2-3	7-8	2500	1	*
Manchester	1016.4	0	NW	3	zo	45	92	5	5	-	-	10	10	2500	1	*
Spurn Head	1013.3	+4	W'N	3	c	42	85	6	3	4	-	4-6	9+	2500	0	2
Catterick	1013.8	-2	W	3	c	45	85	7	-	9	9	0	7-8	-	1	*
Tynemouth	1013.7	0	W	4	c	45	85	6	8	-	-	7-8	7-8	2500	1	2
St. Abbs Head	1013.3	+12	NW	2	dd	43	97	4	5	-	-	10	10	3500	1	gale
Leuchars	1014.1	+14	NE	2	dodo	43	92	6	5	-	-	10	10	1500	1	-*
Renfrew (Abbots I.)	1014.6	-6	WNW	5	zo	48	85	6	5	2	-	4-6	9+	4000	1	*
Eskdalemuir	1014.4	0	NWN	3	c	46	85	7	5	-	-	10	10	1500	1	*
Point of Ayre	1016.8	0	NW	4	b	47	92	8	-	4	-	0	1	-	0	3
Tiree	1016.1	0	NW	4	ido	49	92	7	5	-	-	9+	9+	1500	1	3
Stornoway	1015.8	+6	NNE	3	dd	42	92	6	5	2	-	7-8	10	1500	1	1
Dalwhinnie	"	+2	W	2	r	45	92	6	4	2	-	4-6	10	1500	1	*
Aberdeen	1014.2	+4	NW	2	ro	39	97	6	6	2	-	7-8	9+	800	1	gale
Wick	1015.1	+12	NW	3	c	38	85	8	5	7	8	4-6	10	1500	1	1
Lerwick	1013.2	-2	NNW	4	c/rs	34	85	7	8	7	-	4-6	10	800	8	*
Blacksod Point	1021.2	0	W	2	cf	41	97	3	-	2	-	0	10	-	1	1
Malin Head	1018.6	+2	NW	4	bc	48	82	8	4	-	2	2-3	4-6	5700	0	3
Aldergrove	1019.5	-6	W	1	zo	40	97	6	5	3	-	4-6	9+	4000	1	*
Birr Castle	1021.5	"	ENE	1	of	28	97	3	5	-	-	10	10	2900	3	*
Valentia Obsy. †	1020.6	+2	E'N	2	b	37	85	8	-	-	-	0	0	-	5	1
Roches Point	1021.0	+4	NNE	3	b	38	85	8	-	-	-	0	0	-	1	2

PAST 24 HOURS.

Stations.	Weather. 7h.—13h. 25th (37)	13h.—18h. 25th (38)	18h. 25th to 1h. 26th (39)	1h.—7h. 26th (40)
London (Kew)	ofcfxcm	cmbfoff	ofefe	ofefcm
Croydon	cmfoF	ofe	ofebfe	oFeof
S. Farnborough	cmoFmo	omoFb	Fxofe	fmc
Boscombe Down	offcmbcm	bbcm bf	bfbofcmf	cmom
Calshot (Soton.)	off	cm, off	offFx	f
Lympne	cfxcmf	cbcmfF	FxFe	Fe
Manston	bfcf	cfoF	oF	oF
Shoeburyness	ofbf	ffFF	F	ff
Felixstowe	bmcbmo	bcm,m	bcmcmx	cm
Gorleston	oFbcf	bcfcmo	cmj'm	omodo
Mildenhall	bcfcm	cmbcmcm	cbcmxf	cfcm
Cranwell	bbcmm	bcmocm	cwm	cmidodo
Birmingham	bf	bbcm	bcc	codo
Upper Heyford	cmcof	bcfmbm	bmbccm	cmo
Ross-on-Wye	"	bzbbmo	bmcmc	c
Hartland Point	cbc	cbcb	bbcc	c
Bristol	f	bcmbfe	bfebccm	cm,cbc
Portland Bill	ccZo	bc	bbc	co
Plymouth	bmoxf	bcjf bzo	bzomx	oFx, bm
The Lizard	bc	bcc	bcw	bcw
Scilly (St. Mary's)	bc	bc	bc	bcc
Guernsey	bcb	b	bbcc	bcc
Pembroke	bc	bccif	bc	bcc
Holyhead	bcc	cbc	bcc	bccprc
Chester (Sealand)	bcmobbc	bccbcm	bcmw	cmowiddc
Manchester	cmcmo	cmo	cmobcc	cmodo
Spurn Head	cmo	cmo	cmo	ocdo
Catterick	bbcc	cbcc	c	cddir
Tynemouth	c	c	coid	oidiro
St. Abbs Head	cq	cddm	orore	rorc
Leuchars	cwc	cidodddo	dodoiRrc	irocirc
Renfrew (Abbots I.)	bcc	cjpcmo	cmoidoc	ccmdoid
Eskdalemuir	bcc	c	cido	cido
Point of Ayre	c	cbc	bc	idoc
Tiree	c	cido	cproc	cpro
Stornoway	crrmo	cdd	cidor	cir
Dalwhinnie	cir	cr	**	cir
Aberdeen	crors	ciro	circ	ciro
Wick	rrdoo	c	cprc	cq
Lerwick	c	crs	c	cps
Blacksod Point	ff	bcf	bc	c
Malin Head	c	cbc	c	cproc
Aldergrove	cmo	cbc,cmo	bcbxcm	cdodoir
Birr Castle	off	off	c	cx
Valentia Obsy. †	bcxbxb	b	bx	bxcxbx
Roches Point	b	b	bw	c

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_o, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_o/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). ⁄gale.
⊕ Solar halo. ⌽ lunar halo. ⌂ Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

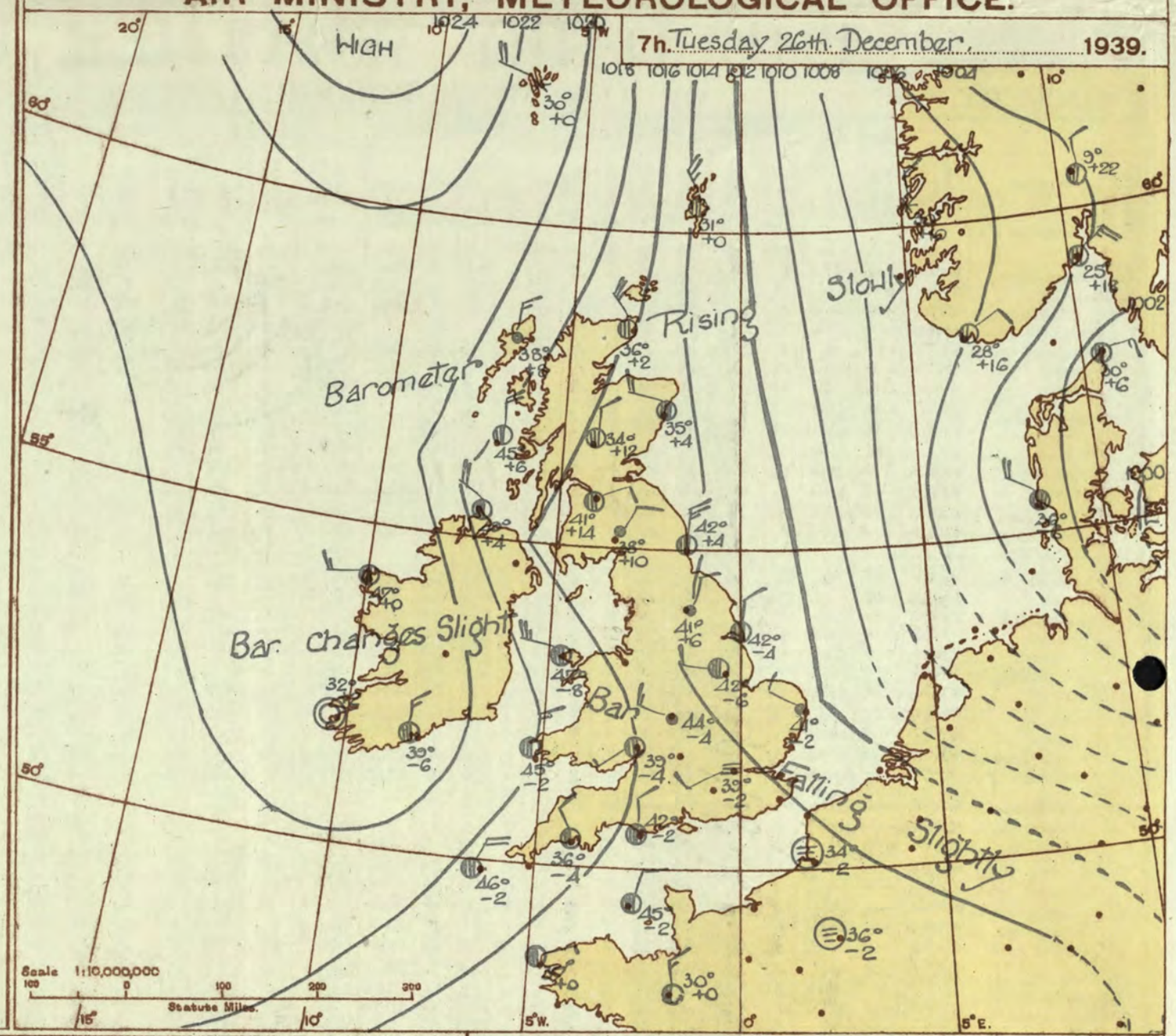
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Tuesday 26th. December, 1939.



BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 26th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ... 5 S.W. England 6 South Wales ...	Wind moderate west or northwest becoming north tomorrow; occasional rain or drizzle today, brighter periods but chance of sleet showers tomorrow; becoming colder.
7 North Wales ... 8 N.W. England 9 N. Midlands ... 10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man. 13 A. W. Scotld. B.N.W.Scotland. 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Wind north moderate showers of sleet or snow but bright periods; cold, with sharp frost at night.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Wind varaiable light or moderate; cloudy, slight local rain; average temperature.

GENERAL INFERENCE.

Pressure is high over Iceland and low over Scandinavia. A weak trough of low pressure over the British Isles is moving southwards. There will be fog at first in Southeast England and some rain or drizzle in all districts changing later to sleet or snow in the North. The temperature will fall considerably in most districts .

FURTHER OUTLOOK.

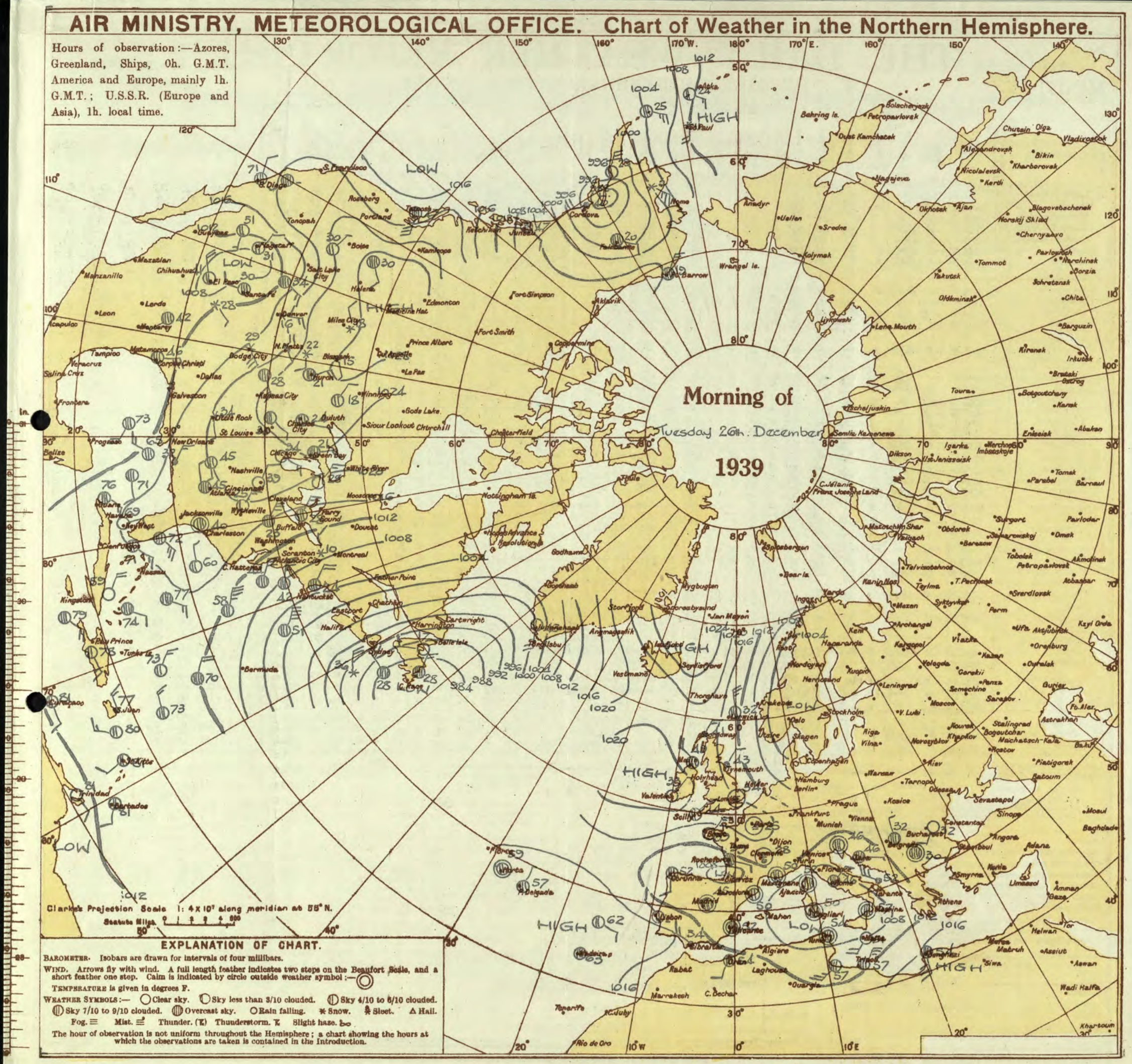
None issued.

Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Tuesday, 26th December 1939.

No 28,523

OBSERVATIONS at 1 hr. G.M.T. 26th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1015.9	−6	—	0	F-	34	97	0	—	—	—	10	10	<150
	S. Farnborough	226	1015.6	−10	W	1	cf	34	85	3	—	1	—	0	10	—
	Boscombe Down	417	1016.4	−8	NW'N	1	mf	36	97	4	5	—	—	9+	9+	1500
	Calshot (Sthmtn.)	8	1016.1	−8	WNW	1	F	32	92	1	—	—	—	10	10	<150
	Lympne ...	346	1015.7	−6	NNW	2	F	33	97	1	—	—	—	10	10	<150
	Manston ...	154	1014.3	−10	NW'W	3	F	35	97	0	—	—	—	10	10	<150
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1013.5	−10	WNW	2	m	36	97	4	5	—	—	9+	9+	5700
	Gorleston ...	5	1012.3	−6	W	2	[illegible]	36	92	4	5	—	—	10	10	2500
	Mildenhall ...	19	1014.0	−10	SW	2	of+	35	97	3	6	—	—	10	10	4000
	Cranwell ...	240	1014.4	−2	W'N	2	m	40	92	4	5	—	—	9+	9+	4000
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1015.9	−8	NW'W	3	m	41	97	4	5	—	—	10	10	800
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1017.5	0	NE	3	c	42	97	8	5	—	—	9+	9+	1500
	Bristol ...	209	1016.9	−6	NW	2	z₀	39	92	5	5	—	—	10	10	1500
	Portland Bill ...	32	1015.9	−6	N	2	c	41	92	7	5	—	—	10	10	2500
	Plymouth ...	82	1017.6	−2	N	1	m	36	92	4	—	—	—	0	0	—
	The Lizard ...	240	1017.1	−4	E	3	bc	39	85	8	4	—	—	2-3	2-3	2500
	Scilly (St.Mary's)	163	1017.4	0	NE	3	bc	44	85	7	8	—	—	4-6	4-6	2500
	Guernsey ...	175	1015.8	−4	NNE	1	bc	43	85	7	1	7	8	2-3	4-6	2500
6	Pembroke ...	142	1018.5	−2	NNE	3	bc	43	92	8	2	6	—	2-3	4-6	2500
7	Holyhead ...	26	1017.3	−6	NW'W	4	c	47	92	8	5	—	—	10	10	4000
	Chester (Sealand)	16	1016.4	−6	WNW	3	z₀	46	85	6	5	3	—	4-6	4-6	2500
8	Manchester ...	70	1015.8	−6	W'N	2	z₀	43	97	6	5	—	—	10	10	2500
10	Spurn Head ...	29	1012.9	−2	W'N	3	c	42	92	6	5	—	—	10	10	4000
	Catterick ...	175	1013.5	−4	WNW	2	c	47	85	7	5	—	—	9	9	4000
	Tynemouth ...	108	1015.5	+2	NE	2	id	43	97	6	5	—	—	10	10	1500
11	St. Abbs Head	280	1014.8	+6	—	0	r₀r₀	41	97	7	5	2	—	9	10	1500
	Leuchars ...	36	1015.3	+6	—	0	c	39	97	7	5	2	—	4-6	10	2500
12	Renfrew (Abbots I.)	19	1014.3	−6	WNW	2	c	48	92	7	5	7	—	9	9+	2500
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1026.4	−4	NNW	3	bc	48	92	7	3	4	—	2-3	4-6	1500
13A	Tiree ...	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1017.8	+8	NE	3	r-	41	85	7	8	7	—	7-8	10	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1016.0	+2	NNW	4	c/pr	37	85	7	5	7	—	7-8	10	1500
16	Lerwick ...	156	1013.5	−2	N'W	5	c	32	92	7	8	7	—	4-6	10	800
17	Blacksod Point	18	1021.5	−4	—	0	c	39	97	7	5	—	—	9	9	1500
18	Malin Head ...	84	1017.7	−6	NW	4	c	49	92	7	8	—	—	9	9	4000
	Aldergrove ...	268	1018.6	−2	—	0	z₀	34	97	6	—	7	—	0	9	—
19	Birr Castle ...	173	1021.5	*	S	1	c	32	92	7	5	1	—	7-8	10	2500
20	Valentia Obsy.	30	1021.4	0	NE'E	1	b	33	92	8	—	—	—	0	0	—
	Roches Point	22	1020.9	0	NNE	3	b	36	97	7	—	—	—	0	0	—

OBSERVATIONS at 7 hr. G.M.T. 26th December — PAST 24 HOURS.

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 25th Hrs. (36)
London (Kew)	1014.5	−6	N'S	1	m	37	97	4	5	—	—	10	10	1500	1	*	39	32	32	—	0.1	0.0
Croydon	1015.2	−2	W'S	2	m/f	39	97	4	5	—	—	10	10	1500	1	*	37	32	31	Tr	Tr	0.0
S. Farnborough	1015.1	−2	W'N	2	m	38	97	4	5	—	—	10	10	800	1	*	39	29	27	—	Tr	0.0
Boscombe Down	1015.8	−2	NNW	3	id₀	40	92	5	5	—	—	10	10	800	1	*	42	29	27	Tr	Tr	4.1
Calshot (Sthmtn.)	1015.5	−4	NW'N	2	m	40	92	4	5	3	—	7-8	9+	4000	1	1	40	30	29	—	—	0.0
Lympne	1014.9	−2	NW'N	3	F	35	97	1	—	—	—	10	10	<150	1	§1	38	32	32	0.2	Tr	1.2
Manston	1013.1	−8	NW	3	F-	37	97	1	—	—	—	10	10	<150	1	*	41	33	33	Tr	0.2	0.8
Shoeburyness	1013.7	−6	W'N	2	m/f	38	97	4	—	—	—	10	10	<150	4	*	41	35	29	—	—	0.7
Felixstowe	1012.5	−8	W	2	m	39	92	4	5	—	—	10	10	4000	1	2	43	35	31	—	—	4.8
Gorleston	1012.3	−2	NW	2	id₀	41	92	5	6	—	—	10	10	1500	1	2	38	35	32	—	0.1	*
Mildenhall	1013.1	−6	W'S	2	id₀	39	97	4	5	—	—	10	10	800	1	*	41	33	27	0.1	Tr	2.7
Cranwell	1013.1	−6	W'N	2	d₀d₀	42	92	4	5	—	—	10	10	1500	1	*	43	37	34	—	Tr	3.6
Birmingham	1014.8	−4	NW	3	d₀d₀	44	92	4	5	—	—	10	10	1500	1	*	43	41	38	*	0.1	1.7
Upper Heyford	1015.1	−6	NW'W	3	z₀	43	92	6	5	—	—	10	10	1500	1	*	40	36	29	Tr	—	*
Ross-on-Wye	1016.2	−4	SW'W	2	c	39	85	7	5	—	—	9+	9+	2500	1	*	46	33	23	—	—	6.3
Hartland Point	1016.8	−6	NE	3	c	43	97	8	5	—	—	9	9	1500	0	2	45	41	36	—	—	3.6
Bristol	1016.5	−2	NW	2	bc	39	92	7	5	3	—	2-3	4-6	1500	1	*	42	32	28	—	—	1.9
Portland Bill	1015.7	−2	N	2	o	42	92	7	5	—	—	10	10	2500	1	2	43	39	*	—	—	*
Plymouth	1017.2	−4	NNW	2	z₀	36	97	6	5	—	—	2-3	2-3	220	1	1	46	33	29	—	—	6.3
The Lizard	1017.4	−4	E	3	bc	38	97	8	4	—	—	2-3	2-3	2500	0	1	47	37	*	—	—	5.0
Scilly (St.Mary's)	1017.4	−2	NE'N	3	c	46	85	8	8	6	—	4-6	7-8	2500	1	2	47	43	*	—	—	6.8
Guernsey	1015.1	−4	NNE	1	c	45	75	7	8	—	—	10	10	1500	0	2	47	42	32	—	—	7.3
Pembroke	1018.1	−2	NNE	3	c	45	85	8	5	—	—	9	9	2500	1	1	47	39	*	—	—	6.3
Holyhead	1016.1	−8	W'N	5	c	47	92	7	5	—	—	10	10	2500	1	2	48	45	42	—	0.2	0.0
Chester (Sealand)	1015.2	−6	W'N	4	c/d	47	85	6	5	—	—	10	10	2500	1	*	47	42	36	—	Tr	2.2
Manchester	1014.4	−4	WNW	3	d₀	45	97	5	5	—	—	10	10	2500	1	*	47	41	35	—	Tr	0.2
Spurn Head	1012.8	−4	NNE	2	c	42	97	6	5	—	—	10	10	1500	1	1	44	41	*	—	Tr	3.6
Catterick	1014.2	+6	N'E	2	ir₀	41	92	6	6	—	—	9+	9+	1500	1	*	47	39	39	—	3	1.0
Tynemouth	1015.0	+4	N	5	c/r	42	92	7	6	—	—	10	10	1500	1	3	46	42	39	—	2	*
St. Abbs Head	1015.4	0	NNW	4	c/r	39	85	8	3	2	—	4-6	10	1500	1	3	50	38	*	0.3	5	*
Leuchars	1016.0	+6	—	0	c	37	97	7	5	7	—	7-8	10	4000	1	*	49	37	33	Tr	2	0.0
Renfrew (Abbots I.)	1016.1	+14	E'S	2	id₀	41	92	6	5	—	—	10	10	2500	1	*	50	40	40	—	0.4	0.0
Eskdalemuir	1015.2	+10	NE'N	2	id₀	38	92	6	5	—	—	10	10	450	1	*	47	37	37	—	0.2	1.6
Point of Ayre	1014.5	−6	NW'N	5	c	48	97	7	8	3	—	9	9+	1500	1	3	48	46	*	—	Tr	1.7
Tiree	1016.3	+6	N	4	c	45	85	8	5	—	—	7-8	7-8	2500	0	3	50	45	41	0.1	0.6	0.0
Stornoway	1019.5	+8	N	3	r	38	85	7	8	7	—	7-8	10	2500	1	2	49	38	*	3	0.3	0.0
Dalwhinnie	*	+12	N	2	c	34	92	7	5	4	—	9	10	2500	1	*	47	33	32	1	2	0.0
Aberdeen	1015.8	+4	NW'N	3	c/r	35	92	6	5	3	—	4-6	9+	2500	1	1	48	35	32	1	0.2	0.0
Wick	1016.5	+2	NNW	5	cq	36	75	8	5	7	—	7-8	10	1500	1	2	40	34	*	4	0.1	*
Lerwick	1013.6	0	N'W	5	c/ps	31	97	7	8	7	—	4-6	10	800	8	*	34	29	*	0.6	Tr	0.0
Blacksod Point	1021.0	0	W	3	c	47	75	7	5	—	—	10	10	800	0	2	47	36	*	Tr	—	*
Malin Head	1017.5	+4	NW	4	c	49	92	7	8	—	—	9	9	4000	0	3	49	46	*	—	0.5	1.4
Aldergrove	1016.7	−6	WNW	2	c/r	45	97	5	—	2	—	10	10	450	1	*	44	33	26	*	1	1.9
Birr Castle	1020.9	*	S	1	c	34	97	7	5	1	—	7-8	10	2500	3	*	29	27	26	—	—	0.0
Valentia Obsy.	1021.9	+2	—	0	b	32	92	8	5	—	—	1	1	4000	5	1	45	30	23	Tr	Tr	6.3
Roches Point	1020.3	−6	N'E	3	c	39	85	8	5	—	—	9	9	2500	1	2	46	35	*	—	Tr	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temp. Day Max. °F.	Temp. Night Min. °F.	Temp. Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h. (To-day)
Kew	18	ofcfxcm	ombfoff	ofefem	39	32	32	—	0.1	0.0	*	*	3
Croydon	217	cmfoF	ofe	ofebfof	37	32	31	Tr	Tr	0.0	*	*	*
Greenwich (Royal Observatory)	149	cffc	feff	cfefe	37	34	30	Tr	Tr	0.0	95	97	2
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*									*
Regents Pk. (Botanic Gardens)‡	168	*	*	*									*
Camden Square	110			*									*
Kensington	80	o cf	o cf	*	39 / 40	32 / 33	27 / 32	— / Tr	— / —	*	* / 97	98 / 97	*
Hampstead Observatory	450												*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 26th

South Kensington Max.	Time.	Min.	Time.

Kew Observatory Max.	Time.	Min.	Time.
0.9	10-11h 25th	0.2	7h 26th

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 25th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 26th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1016.5	←	0	F	27	1014.9	—	0	f	*	28	25	—	—
Brussels											*	*		
Berlin														
Zürich														
Rome														

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22.—Code for surface visibility.

Code		Objects not visible at
0	Dense fog	55 yards.
1	Thick fog	220 "
2	Fog	550 "
3	Moderate fog	1,100 "
4	Mist or haze	1¼ miles.
5	Poor visibility	2½ "
6	Moderate "	6¼ "
7	Good "	12½ "
8	Very good "	31 "
9	Excellent "	beyond 31m.

COLUMN 30.—Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Wednesday 27th December 1939.
No. 28,524

OBSERVATIONS at 13h. G.M.T. 26th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1013.5	-14	NW'W	2	d₀d₀	44	97	4	5	-	-	10	10	1500
	Croydon	1014.0	-14	W	1	df	42	97	2	5	-	-	10	10	450
	S. Farnborough	1014.1	-10	WNW	2	z₀	44	92	6	5	-	-	10	10	800
	Boscombe Down	1014.8	-10	NW	3	z₀	45	85	6	5	3	-	4-6	7-8	2500
	Calshot (Soton.)	1014.8	-6	NW	3	z₀	45	85	6	5	3	-	9+	9+	2500
	Lympne	1013.9	-8	NNW	2	cft	41	97	3	5	-	-	10	10	220
	Manston	1012.6	-12	N'W	3	f—	41	97	3	-	-	-	10	10	<150
2	Shoeburyness	1013.7	-6	NNW	2	m/f	43	97	4	5	-	-	10	10	450
	Felixstowe	1012.7	-2	NNW	2	m/d	41	97	4	5	-	-	10	10	800
	Gorleston	1013.0	-6	NW'N	3	c	43	85	6	5	-	-	9+	9+	2500
	Mildenhall	1013.7	0	NW'N	2	of—	41	97	3	-	2	-	10	10	450
	Cranwell	1014.6	-2	NW	2	z₀	41	97	5	5	-	-	10	10	450
3	Birmingham	1014.1	-2	NW	3	rf	44	97	3	5	-	-	10	10	800
	Upper Heyford	1014.7	-6	NW	3	id₀	44	97	6	5	-	-	10	10	800
4	Ross-on-Wye	1015.1	-10	WNW	3	c	48	75	8	5	-	1	7-8	9	2500
5	Hartland Point	1017.3	-4	N	2	c	47	92	8	5	4	-	4-6	7-8	2500
	Bristol	1015.3	-8	WNW	3	z₀	46	65	6	5	3	-	4-6	7-8	4000
	Portland Bill	1015.3	-10	NW	2	c	46	92	7	5	-	-	10	10	2500
	Plymouth	1017.1	-10	N	[illegible]	z₀	45	85	6	-	5	6	0	7-8	-
	The Lizard	1017.5	0	NNE	2	bc	48	85	8	4	4	-	2-3	4-6	2500
	Scilly (St. Mary's)	1018.1	+4	N'E	4	c	48	65	8	4	4	-	4-6	9+	1500
	Guernsey	1015.2	-6	N'E	1	c	47	85	7	8	2	-	7-8	10	4000
6	Pembroke	1017.7	-2	NNW	4	c/d	47	97	7	5	2	-	7-8	9+	1500
7	Holyhead	1016.4	+4	NW'N	5	c	49	85	8	9	-	-	9+	9+	1500
	Chester (Sealand)	1015.1	0	N'W	3	c/pr	47	92	7	8	-	-	9+	9+	1500
8	Manchester	1015.4	+10	NE	3	ir₀	43	85	5	5	2	-	7-8	9+	2500
10	Spurn Head	1014.0	0	N'W	3	c/r	41	92	7	8	9	-	4-6	9+	1500
	Catterick	1015.9	+2	N	3	c	40	85	7	8	3	-	7-8	9	2500
	Tynemouth	1016.6	+4	N	4	o/r	41	75	7	6	-	-	10	10	1500
11	St. Abbs Head	1016.4	0	NNW	4	c	38	75	8	8	6	-	4-6	9+	1500
	Leuchars	1018.0	+6	N	1	c	38	75	8	8	7	-	4-6	9	4000
12	Renfrew (Abbots I.)	1018.3	+6	—	0	c	41	92	7	8	3	8	7-8	9	1500
	Eskdalemuir	1017.0	+2	NE'E	2	c	37	85	8	5	-	-	7-8	7-8	1500
	Point of Ayre	1017.0	+12	E'N	4	c	43	85	8	5	4	-	4-6	7-8	2500
13A	Tiree	1019.3	+8	N'E	4	bc	43	75	6	1	3	-	1	4-6	4000
13B	Stornoway	1021.4	+8	NNW	3	c/pr	39	75	8	5	7	-	7-8	10	2500
15	Dalwhinnie	1020.1	+4	N	3	c	33	85	8	5	6	1	7-8	9+	2500
	Aberdeen	1017.3	+4	N'W	4	c/s	34	92	8	5	3	-	4-6	9+	1500
	Wick	1018.0	+6	NNE	5	c	36	75	8	8	7	8	7-8	9+	1500
16	Lerwick	1014.4	0	N'W	5	c/ps	31	85	7	8	7	-	4-6	7-8	800
17	Blacksod Point	1022.0	0	W'N	3	c	49	85	8	5	-	-	10	10	1500
18	Malin Head	1018.8	+4	N	2	c	46	65	8	8	-	-	7-8	7-8	4000
	Aldergrove	1018.1	+4	NNW	2	id₀	45	65	7	8	-	-	9+	9+	1500
19	Birr Castle	1021.3	*	SW	1	c	40	97	7	5	3	-	4-6	7-8	2500
20	Valentia Obsy. †	1023.3	0	—	0	cfs	37	92	8	5	-	-	10	10	4000
	Roches Point	1020.7	-8	N	4	c	43	85	8	5	-	-	9	9	2500

OBSERVATIONS at 18h. G.M.T. 26th December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
1	London (Kew)	1016.3	+20	N'E	2	m	42	92	4	5	-	-	10	10	1500	1	*
	Croydon	1016.1	+20	NNE	1	rf	41	97	3	-	2	-	10	10	800	1	*
	S. Farnborough	1016.6	+20	NNE	1	d₀d₀	42	92	5	5	-	-	10	10	2500	1	*
	Boscombe Down	1016.3	+12	NW'N	2	m	44	85	4	5	-	-	9+	9+	1500	1	*
	Calshot (Soton.)	1015.6	+8	NW	2	z₀	45	92	5	5	-	-	10	10	1500	1	2
	Lympne	1015.4	+8	NW	2	m	39	97	4	5	-	-	10	10	450	1	§1
	Manston	1015.0	+10	N'E	3	z₀	40	97	6	5	7	-	9+	9+	1500		*
2	Shoeburyness	1015.5	+12	N	1	m	41	92	4	5	-	-	10	10	2500	1	*
	Felixstowe	1015.0	+10	NNW	2	ir₀	40	92	6	5	-	-	10	10	1500	1	2
	Gorleston	1015.2	+12	NNW	2	c	39	85	6	5	-	-	9+	9+	2500	1	2
	Mildenhall	1015.7	+14	N	2	ir₀	39	97	6	6	7	-	9	10	800	1	*
	Cranwell	1016.8	+14	NNW	3	z₀	38	85	6	5	-	-	9+	9+	4000	1	*
3	Birmingham	1017.4	+14	NE	3	m	40	85	4	5	-	-	10	10	800	1	*
	Upper Heyford	1016.8	+10	NE	2	z₀	40	97	6	5	-	-	10	10	1500	1	*
4	Ross-on-Wye	1017.0	+14	NE	2	z₀	41	92	6	5	-	-	9	9	1500	1	*
5	Hartland Point	1017.9	+6	N	3	bc	47	92	8	5	4	-	2-3	4-6	1500	0	2
	Bristol	1016.6	+14	NW	2	ir₀	44	97	6	5	-	-	10	10	1500	1	*
	Portland Bill	1016.4	+10	NW	2	c	47	92	7	5	-	-	7-8	7-8	2500	1	2
	Plymouth	1017.2	[illegible]	N'W	3	z₀	47	85	6	5	-	-	7-8	7-8	1500	1	1
	The Lizard	1018.4	+2	NNW	4	bc	44	85	8	8	4	-	2-3	4-6	2500	0	2
	Scilly (St. Mary's)	1019.4	+10	N	4	c	48	85	8	8	6	-	7-8	9+	1500	1	2
	Guernsey	1016.3	+8	NW'N	1	c	48	85	7	8	-	-	9+	9+	2500	0	2
6	Pembroke	1018.5	+10	NNE	4	c	48	85	7	8	-	-	9+	9+	1500	1	2
7	Holyhead	1018.4	+10	NNE	3	c	46	85	8	5	-	-	10	10	1500	1	2
	Chester (Sealand)	1018.7	+24	NE'E	2	m	41	92	4	5	-	-	10	10	2500	1	*
8	Manchester	1018.8	+22	NNW	1	z₀	40	75	5	5	3	-	4-6	9	2500	1	*
10	Spurn Head	1016.1	+10	NNW	4	pr	39	85	6	3	9	-	7-8	9+	800	1	3
	Catterick	1018.3	+6	NW'N	2	bc	35	75	7	5	3	-	2-3	2-3	2500	1	*
	Tynemouth	1018.3	+10	NW	3	c	38	85	6	8	-	-	7-8	7-8	2500	1	3
11	St. Abbs Head	1017.8	+4	NW	5	c	38	75	8	8	6	-	4-6	7-8	2500	0	3
	Leuchars	1019.2	+6	NNW	1	bc	35	85	8	4	3	-	Tr	4-6	4000	1	*
12	Renfrew (Abbots I.)	1020.5	+14	—	0	z₀	34	85	6	-	3	-	0	1	-	1	*
	Eskdalemuir	1020.0	+12	—	0	bc	31	85	8	-	4	-	0	2-3	-	1	*
	Point of Ayre	1019.6	+10	E	2	c	41	75	8	5	3	-	1	7-8	2500	0	2
13A	Tiree	1021.7	+12	N'E	4	c	42	75	8	5	-	-	9	9	2500	0	3
13B	Stornoway	1022.6	+10	NNW	3	c	35	85	7	5	7	-	7-8	9	2500	1	1
15	Dalwhinnie	*	+2	N	2	c	31	85	7	8	6	-	7-8	9	2500	4	*
	Aberdeen	1018.6	+8	NW	3	bc/p	32	92	8	8	-	-	2-3	2-3	2500	4	2
	Wick	1018.8	+2	NW	5	c	33	85	8	8	7	8	4-6	7-8	1500	4	2
16	Lerwick	1015.6	+2	NNW	6	c/ps	30	85	7	8	7	-	4-6	7-8	1500	8	*
17	Blacksod Point	1022.4	+6	NW	4	r₀c	49	97	6	6	-	-	10	10	450	1	3
18	Malin Head	1022.0	+20	NNE	3	c	44	75	8	8	-	-	7-8	7-8	5700	0	4
	Aldergrove	1020.4	+18	NE'N	1	bc	39	92	7	5	-	-	2-3	2-3	2500	1	*
19	Birr Castle	1021.2	*	NNW	1	c	43	92	7	5	1	-	9	10	2500	1	*
20	Valentia Obsy. †	1024.1	+8	—	0	o	40	92	7	5	-	-	10	10	2500	1	1
	Roches Point	1021.7	+10	N'W	4	bc	43	92	8	5	-	-	4-6	4-6	2500	1	2

PAST 24 HOURS.

District	Stations	Weather 7h.—13h. 26th. (37)	Weather 13h.—18h. 26th. (38)	Weather 18h. 26th. to 1h. 27th. (39)	Weather 1h.—7h. 27th. (40)
1	London (Kew)	cffd₀d₀	cr₀rcir₀c	cmbcb	bbccm₀x
	Croydon	cmfd₀oD	oFDr₀	ofr₀cmcm	cm₀bcm₀
	S. Farnborough	cmid₀c	mdd₀c	cm₀r₀r₀b	bcm₀bxc
	Boscombe Down	cm₀id₀cm₀	cm₀d₀cm	cmid₀cmbcm	bcm₀bm₀
	Calshot (Soton.)	cmcm₀	cm₀idm₀	ir₀mid₀	cm₀bm₀
	Lympne	Fecfbcm	offd₀cm₀	cm₀bcm₀	cm₀pbcm₀
	Manston	OFid₀of	Fir₀cm₀	ir₀cm₀	cm₀
2	Shoeburyness	ffmo	mod₀	cm cm₀	bm₀xbc
	Felixstowe	cm₀id₀cm	cm₀id₀	cm₀ir₀c	cbcc
	Gorleston	cmdfc	cpr₀	cpr₀c	cps
	Mildenhall	oid₀orF	of,cir₀	cir₀id₀bcm	bm₀bcm₀
	Cranwell	d₀d₀fcm₀	cm₀ir₀cm₀	cm₀,bm₀	bbcm₀bzx
3	Birmingham	odir₀f	r₀r₀fmo	cmr₀b	bbc
	Upper Heyford	cm₀cid₀	cidm₀d₀d	cm₀id₀m₀	bcm₀xⓊ
4	Ross-on-Wye	c	cor₀c	cm₀omcm	cbm₀x
5	Hartland Point	c	cbc	bcc	cbcc
	Bristol	cbccm₀	cbccr₀	cr₀cm₀	c,bbcm₀x
	Portland Bill	bc	c	c	bc
	Plymouth	bcm₀bm₀f	cm₀	c,bbcm₀w	bcbm₀w
	The Lizard	bc	bcw	cpr₀c	bcbw
	Scilly (St. Mary's)	cbcc	c	c	cp₀bc
	Guernsey	c	c	cbcw	cwbc
6	Pembroke	cid₀	cid₀	cbcb	c
7	Holyhead	cpr₀c	pr₀bcc	cbcc	cbc
	Chester (Sealand)	cm₀ddrcps	cmr₀r₀id₀	cmbm₀x	bbccbcbm₀x
8	Manchester	cm₀mcm₀z	cm₀r₀cz₀	bmxbm₀	bxbm₀
10	Spurn Head	cir	cprq	prqo	rsscq
	Catterick	or₀r₀m₀c	cbcb	bbccbx	bbcc
	Tynemouth	oir₀	oc	cp₀c	c
11	St. Abbs Head	c	c	qc	phc
	Leuchars	c	cwbcx	c	b,cx
12	Renfrew (Abbots I.)	cm₀idm₀	cbcbm₀	bbcm₀bx	cx
	Eskdalemuir	id₀c	cbcb	bx	bbccx
	Point of Ayre	c	c	cbcb	c
13A	Tiree	bc	bc		
13B	Stornoway	cir	cpr	ophrps	cps
15	Dalwhinnie	c	cis	*	csh
	Aberdeen	cis₀	cps₀	bcps₀	bcmps
	Wick	cqc	cpshq	ps₀cq	cps₀q
16	Lerwick	cps	cpsq	cps	cps
17	Blacksod Point	c	ir₀c	c	c
18	Malin Head	cvc	c	c	c
	Aldergrove	id₀cm₀id₀	id₀bcbbc	bccbc	bc,c,bcx
19	Birr Castle	c	c		bbcc
20	Valentia Obsy. †	bxcxc	cp	coid₀	oid₀bbc
	Roches Point	c	bc	cpr₀c	b

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s₀, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s₀/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r₀, slight rain. rr, continuous rain.
<, less than (for cloud height). ⚑ gale.
⊕ Solar halo. Ⓤ lunar halo. ⌓ Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

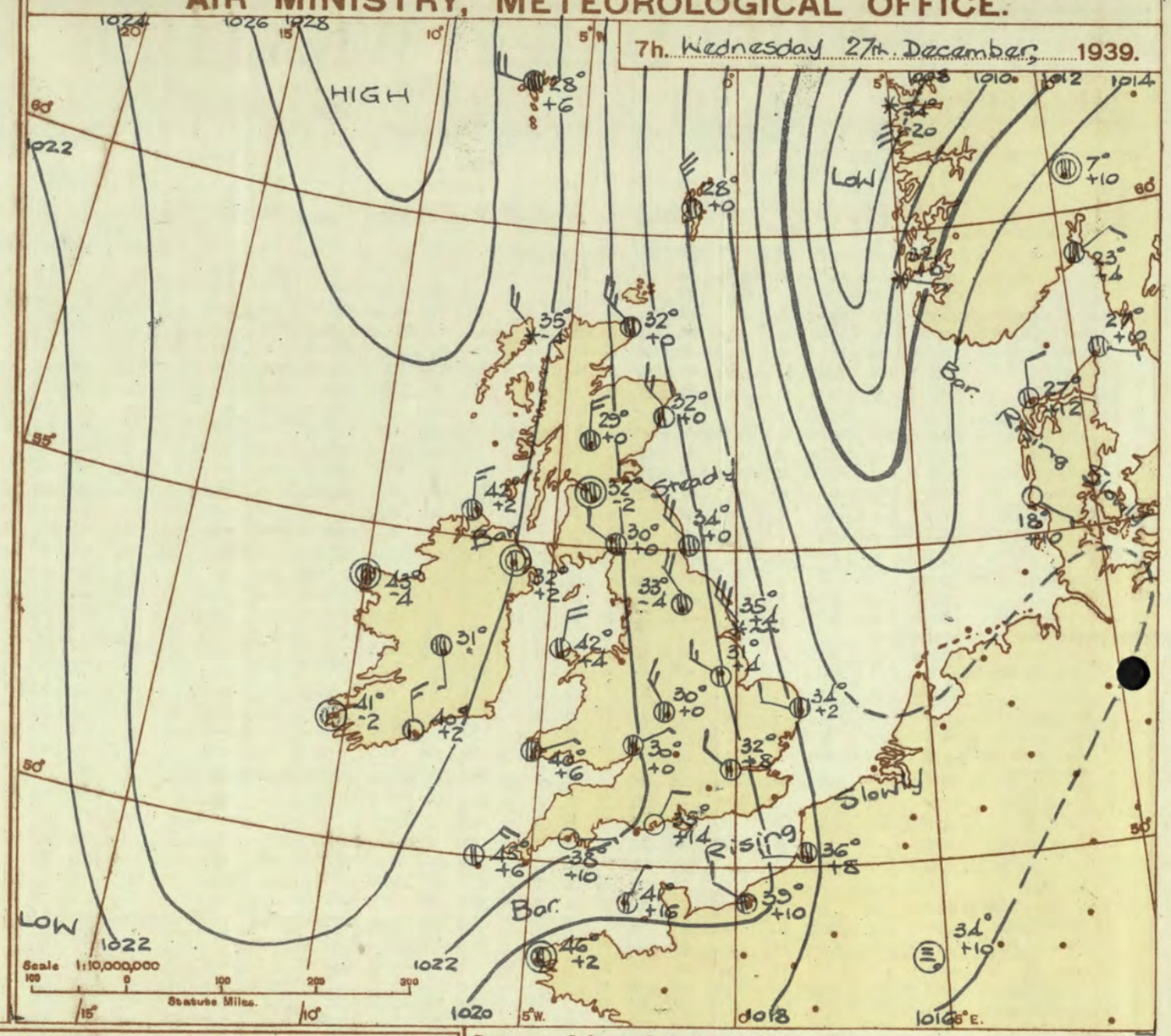
COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

Note.—The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Wednesday 27th. December, 1939.



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 27th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ...	Wind light or moderate north; mainly fair but snow or sleet showers near the East coast; cold with frost at night.
4 W. Midlands ... 5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England 9 N. Midlands ...	Wind light or moderate north; fine; cold with sharp frost at night.
10 N.E. England 11 S.E. Scotland	As 1 - 3.
12 S.W. Scotland & Isle of Man.	As 4 - 9.
13 A. W. Scotld. / B.N.W.Scotland.	Wind north fresh or strong locally; mainly bright but some snow showers; cold with sharp frost.
14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	As 4 - 9.

BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. ~~ Rough. ≈≈ High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

Pressure is high to the west and low to the east of the British Isles. There will be cold northerly winds with mainly fine weather but sleet or snow showers will occur on and near the East coast and in Northern Scotland and frost will be general at night.

FURTHER OUTLOOK.

Little change.

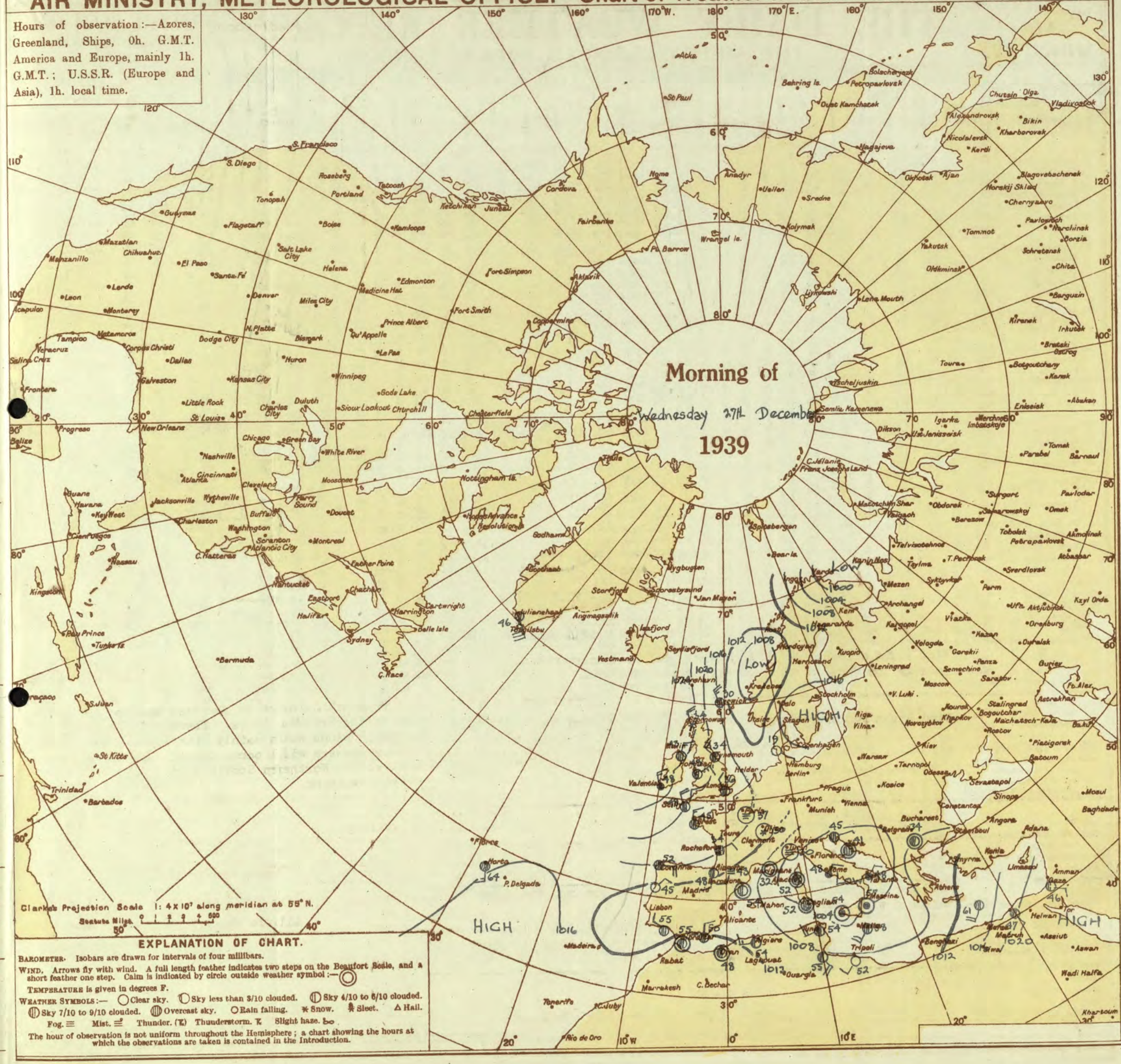
Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

Hours of observation:—Azores, Greenland, Ships, 0h. G.M.T. America and Europe, mainly 1h. G.M.T.; U.S.S.R. (Europe and Asia), 1h. local time.



EXPLANATION OF CHART.

BAROMETER. Isobars are drawn for intervals of four millibars.

WIND. Arrows fly with wind. A full length feather indicates two steps on the Beaufort Scale, and a short feather one step. Calm is indicated by circle outside weather symbol :—

TEMPERATURE is given in degrees F.

WEATHER SYMBOLS :— Clear sky. Sky less than 3/10 clouded. Sky 4/10 to 6/10 clouded. Sky 7/10 to 9/10 clouded. Overcast sky. Rain falling. Snow. Sleet. Hail. Fog. Mist. Thunder. Thunderstorm. Slight haze.

The hour of observation is not uniform throughout the Hemisphere; a chart showing the hours at which the observations are taken is contained in the Introduction.

Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Wednesday 27th December 1939.

No. 28,524

OBSERVATIONS at 1 hr. G.M.T. 27th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Med. (10)	High (11)	Amount Low 0–10 (12)	Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon	217	1018.8	+10	NNW	2	Zo	36	85	5	5	–	–	9+	9+	1500
	S. Farnborough	226	1019.4	+8	NNW	2	Zo	36	92	6	5	–	–	2-3	2-3	2500
	Boscombe Down	417	1019.5	+8	N'E	3	Zo	37	85	5	5	–	–	Tr	Tr	2500
	Calshot (Sthmtn.)	8	1018.9	+10	N	2	Zo	41	85	5	5	–	–	9+	9+	2500
	Lympne	346	1018.2	+12	N'W	3	Zo	36	92	6	5	–	–	9+	9+	1500
	Manston	154	1017.5	+10	N	4	Zo	38	85	6	5	–	–	9+	9+	800
2	Shoeburyness	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe	15	1016.8	+6	N	3	c	36	92	7	5	–	–	9+	9+	4000
	Gorleston	5	1016.8	+8	NW	2	c/pr	34	85	6	8	–	–	9	9	2500
	Mildenhall	19	1018.2	+4	NW	3	Zo	33	92	6	5	–	1	1	2-3	4000
	Cranwell	240	1019.7	+14	NW	3	Zo	32	85	6	5	–	–	Tr	Tr	5700
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1020.3	+12	NNW	2	Zo	34	85	6	5	–	–	9+	9+	4000
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1019.3	+4	N	3	c	44	92	8	8	6	–	4-6	9+	1500
	Bristol	209	1020.7	+10	NNE	3	Zo	39	85	5	5	–	–	9+	9+	4000
	Portland Bill	32	1018.7	+10	NE	2	c	42	92	8	1	–	–	7-8	7-8	4000
	Plymouth	82	1019.4	-6	NW	2	Zo	44	92	6	5	3	–	2-3	2-3	2500
	The Lizard	240	1020.2	+2	NW	3	c/pr	46	97	7	8	2	–	7-8	10	1500
	Scilly (St. Mary's)	163	1020.7	-2	NNW	4	c	48	85	8	8	2	–	7-8	10	1500
	Guernsey	175	1017.5	+6	NNE	1	c	46	92	7	2	3	–	7-8	9	2500
6	Pembroke	142	1020.8	+6	NE	3	b	40	85	8	5	+	–	1	1	2500
7	Holyhead	26	1021.8	+10	NE	3	c	43	85	8	7	–	–	9	9	4000
	Chester (Sealand)	16	1021.7	+10	NW	1	Zo	32	92	5	–	–	–	0	0	–
8	Manchester	70	1021.3	+10	NW	2	Zo	28	85	6	–	–	–	0	0	-
10	Spurn Head	29	1017.6	+2	NNW	4	SoSo	34	97	5	5	–	–	10	10	1500
	Catterick	175	1020.1	+6	NW'N	2	b	34	75	8	5	–	–	1	1	4000
	Tynemouth	108	1019.5	-2	NW	4	c	34	75	7	2	–	–	7-8	7-8	2500
11	St. Abbs Head	280	1019.6	+4	NNW	4	c	36	85	8	2	6	–	4-6	7-8	2500
	Leuchars	36	1021.2	+6	NW	3	bc	33	75	9	7	4	5	1	2-3	4000
12	Renfrew (Abbots I.)	19	1022.8	+4	–	0	bc⊕	32	85	7	7	5	6	4-6	7-8	4000
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1022.2	+6	NNE	3	b	41	65	8	5	–	–	1	1	4000
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway	80	1024.2	0	NNW	4	ps	34	85	7	3	–	–	10	10	2500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick	81	1020.0	+6	NW	5	c/ps	34	97	8	8	1	–	4-6	7-8	1500
16	Lerwick	156	1016.6	+4	N'W	5	c	30	85	7	8	7	–	4-6	7-8	1500
17	Blacksod Point	18	1025.5	+12	–	0	c	44	92	8	–	7	–	0	7-8	–
18	Malin Head	84	1024.8	+10	N'E	3	c	43	75	8	4	7	–	4-6	4-6	5700
	Aldergrove	268	1024.0	+6	N	1	bc	32	85	8	5	–	–	2-3	2-3	4000
19	Birr Castle	173														
20	Valentia Obsy.	30	1024.7	-4	N'W	3	ido	48	97	6	5	–	–	10	10	800
	Roches Point	22	1023.3	+2	NNW	3	c	45	92	8	5	–	–	7-8	7-8	2500

OBSERVATIONS at 7 hr. G.M.T. 27th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Med. (24)	High (25)	Amount Low 0–10 (26)	Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1020.4	+6	NNW	2	Zo	32	75	6	5	–	2	4-6	9+	2500	3	*
Croydon	1020.5	+8	NW	2	Zo	32	85	6	5	–	6	2-3	4-6	2500	1	*
S. Farnborough	1021.5	+10	WNW	2	Zo	30	85	6	–	–	6	0	7-8	–	3	*
Boscombe Down	1021.1	+2	N	2	Zo	29	85	6	–	7	2	0	4-6	–	1	*
Calshot (Sthmtn.)	1020.9	+10	N'W	3	Zo	34	85	5	5	3	6	Tr	7-8	1500	1	2
Lympne	1019.7	+6	N'W	2	Zo	32	85	6	5	–	–	10	10	600	1	§
Manston	1018.6	+6	N	4	Zo	34	85	6	5	–	–	9+	9+	800	1	*
Shoeburyness	1019.4	+8	NW	2	bc	32	92	7	–	–	8	0	4-6	–	3	*
Felixstowe	1018.1	+6	N	2	c	34	92	7	5	–	–	9	9	1500	1	2
Gorleston	1017.1	+2	WNW	3	c/ps	34	92	6	8	–	–	10	10	2500	4	2
Mildenhall	1019.0	+6	NW'W	3	Zo	30	97	6	5	–	6	4-6	7-8	4000	1	*
Cranwell	1020.2	+4	NW	3	Zo	31	75	6	–	3	2	0	2-3	–	0	*
Birmingham	1021.6	0	NNW	3	c	30	85	5	–	–	6	0	7-8	–	1	*
Upper Heyford	1021.6	+2	NW	2	m	29	85	4	–	3	6	0	4-6	–	1	*
Ross-on-Wye	1022.0	0	NE'E	1	Zo	30	85	6	–	7	6	0	7-8	–	1	*
Hartland Point	1021.8	+4	NNE	3	c	42	75	7	5	2	–	7-8	10	1500	0	2
Bristol	1022.5	+4	–	0	Zo	31	85	5	5	3	–	2-3	7-8	2500	5	*
Portland Bill	1022.3	+14	NE	2	bc	35	92	8	1	–	–	4-6	4-6	4000	1	2
Plymouth	1022.0	+10	E	1	Zo	38	92	6	–	–	–	0	0	–	1	1
The Lizard	1022.2	+10	NNE	3	b	40	92	8	–	–	–	0	0	–	1	1
Scilly (St. Mary's)	1022.3	+6	NE	3	bc	45	75	5	8	3	–	2-3	4-6	1500	1	3
Guernsey	1020.3	+16	NNE	1	bc	41	75	7	2	7	–	2-3	4-6	2500	0	2
Pembroke	1023.3	+6	E'N	1	c	40	85	8	5	–	–	9+	9+	2500	1	1
Holyhead	1023.1	+4	N'E	4	bc	42	75	8	8	3	–	2-3	4-6	2500	0	2
Chester (Sealand)	1022.8	+4	N	1	Zo	31	85	6	5	–	–	2-3	2-3	4000	3	*
Manchester	1022.3	+2	SE	1	b	26	85	6	5	–	–	1	1	4000	3	*
Spurn Head	1018.8	+4	NNW	6	s	35	97	6	3	1	–	7-8	10	800	4	4
Catterick	1020.9	-4	NW'W	4	c	33	75	8	–	5	6	0	9+	–	3	*
Tynemouth	1020.8	0	NW	4	c	34	85	6	8	–	–	9+	9+	2500	1	3
St. Abbs Head	1020.2	-2	NW	5	c	36	85	8	2	6	–		7-8	2500	0	3
Leuchars	1021.7	-2	WNW	2	c	33	75	9	8	–	6	1	9+	4000	3	*
Renfrew (Abbots I.)	1023.2	-2	–	0	c	32	85	6	5	3	–	9	9+	4000	3	*
Eskdalemuir	1022.5	0	NW	2	c	30	75	8	5	7	–	4-6	10	1500	3	*
Point of Ayre	1023.2	-4	NNE	2	c	39	75	8	7	–	–	7-8	7-8	4000	0	2
Tiree	1023.0	0	N'E	4	c	40	85	8	8	3	–	4-6	7-8	1500		
Stornoway	1024.4	-4	NW	4	ps	35	85	7	3	–	–	10	10	1500	1	2
Dalwhinnie	1022.8	0	N	3	c	29	97	7	5	–	–	10	10	2500	4	*
Aberdeen	1020.3	0	NW'W	3	bc/ps	32	92	8	8	–	–	4-6	4-6	2500	7	2
Wick	1020.6	0	NW	5	c/ps	32	92	7	5	1	8	4-6	7-8	1500	4	2
Lerwick	1016.9	0	NW'N	5	c/ps	28	85	7	8	7	–	4-6	7-8	1500	8	*
Blacksod Point	1025.8	+4	–	0	c	43	85	8	7	–	–	9	9	1500	0	2
Malin Head	1025.2	+2	N	3	c	42	65	8	8	–	–	7-8	7-8	5700	0	3
Aldergrove	1025.2	+2	–	0	bc	32	85	8	8	7	–	2-3	4-6	4000	1	*
Birr Castle	1026.5	*	SSE	1	c	31	92	7	5	2	–	9	10	2500	3	*
Valentia Obsy.	1025.8	-2	–	0	bc	41	85	9	–	3	–	0	2-3	–	1	1
Roches Point	1025.6	+2	N	3	b	40	92	8	5	–	–	1	1	4000	1	2

PAST 24 HOURS.

Stations	Temperature Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Night 18h–7h mm. (35)	Sunshine 26th Hrs. (36)
London (Kew)	45	32	23	0.5	Tr	0.0
Croydon	43	31	28	1	0.2	0.0
S. Farnborough	47	30	21	0.2	0.2	0.0
Boscombe Down	45	29	25	–	Tr	0.9
Calshot (Sthmtn.)	46	33	29	0.2	0.3	0.1
Lympne	42	39	30	0.1	0.3	0.0
Manston		34	32		Tr	0.0
Shoeburyness	44	31	23	0.2	–	0.0
Felixstowe	42	33	31	0.5	1	0.0
Gorleston	43	32	29	1	4	*
Mildenhall	42	30	25	0.6	0.4	0.0
Cranwell	42	30	27	1	–	0.0
Birmingham	45	30	25	2	0.2	0.0
Upper Heyford	44	28	20	1	–	*
Ross-on-Wye	49	30	18	0.3	–	
Hartland Point	47	41	38	–	–	0.9
Bristol	47	30	16	0.3	–	2.0
Portland Bill	47	34	*	–	–	*
Plymouth	48	37	29	–	–	5.8
The Lizard	50	39	*	–	–	6.0
Scilly (St. Mary's)	48	45	*	–	0.4	2.7
Guernsey	48	41	32	–	–	0.0
Pembroke	48	38	*	0.2	0.2	0.1
Holyhead	50	41	35	Tr	–	2.4
Chester (Sealand)	48	31	25	1	Tr	0.0
Manchester	47	26	17	0.2	–	0.0
Spurn Head	42	33	*	1	6	0.0
Catterick	41	32	28	0.1	–	0.6
Tynemouth	43	33	30	0.4	0.2	*
St. Abbs Head	40	34	*	–	Tr	*
Leuchars	39	31	27	–	–	0.0
Renfrew (Abbots I.)	41	27	28	–	–	0.0
Eskdalemuir	38	27	18	Tr	–	0.6
Point of Ayre	49	37		Tr	–	0.0
Tiree				–		
Stornoway	40	33	*	0.2	1	1.1
Dalwhinnie	24	27	22	0.1	0.1	0.0
Aberdeen	35	30	23	0.3	1	0.0
Wick	36	31	*	Tr	0.1	*
Lerwick	32	27	*	0.3	Tr	0.0
Blacksod Point	50	40	*	Tr	Tr	*
Malin Head	49	36	*	2	–	0.9
Aldergrove	47	29	22	1	–	0.5
Birr Castle	43	28	26	–	–	1.0
Valentia Obsy.	42	39	31	Tr	0.2	0.0
Roches Point	45	40	*	–	0.4	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon. 9h—18h, Kensington. 9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning	Afternoon	Night	Temperature Day Max. °F.	Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Night mm.	Sunshine to Sunset hrs.	Humidity 15h. G.M.T. % (Yesterday)	9h. G.M.T. % (To-day)	Visibility 9h.
Kew	18	cffd₀d₀	cBr₀cir₀c	cmbemx	45	32	25	0.5	Tr	0.0	*	*	6
Croydon	217	cmfd₀cD	oFDr*	ofᵍcm	43	31	28	1	0.2	0.0	*	*	
Greenwich (Royal Observatory)	149												
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*									*
Regents Pk. (Botanic Gardens)‡	168	*	*	*									*
Camden Square	110			*									*
Kensington	80			*						*	*		*
Hampstead Observatory	450										*		*

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 27th

South Kensington Max.	Time.	Min.	Time.

Kew Observatory Max.	Time.	Min.	Time.
6.9	10h 26th	<0.1	0-1h 27th

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 26th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 27th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Night mm.
Paris						1017.5	NNW	2	c	36		*		*
Brussels														
Berlin														
Zürich														
Rome	1003.8	E	2	c	50	1001.0	E	2	c	48	*	*	0.2	12

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
THE BEAUFORT SCALE OF WIND is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22.—Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1¼ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6¼ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30.—Code for State of Sea.

0 Calm.	5 Very rough.
1 Smooth.	6 High.
2 Slight.	7 Very high.
3 Moderate.	8 Precipitous.
4 Rough.	9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Thursday 28th December 1939.

No. 28525

OBSERVATIONS at 13h. G.M.T. 27th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1021.0	-6	NNW	2	z_0	35	75	5	-	-	4	0	9	-
	Croydon	1020.7	-6	NWW	2	m	34	75	4	-	9	-	0	7-8	-
	S. Farnborough	1021.5	-6	NWW	3	z_0	37	55	6	-	3	-	0	9	-
	Boscombe Down	1021.5	-4	NWW	3	z_0	37	55	6	-	3	-	0	9	-
	Calshot (Soton.)	1021.7	-6	N'W	3	z_0	38	65	6	-	7	9	0	2-3	-
	Lympne	1018.9	-10	NWN	3	z_0	33	75	6	5	-	2	2-3	7-8	1500
	Manston	1019.1	-14	NNW	3	z_0	36	85	6	5	-	-	10	10	1500
2	Shoeburyness	1019.7	-6	NWN	3	c	35	85	6	-	4	4	0	7-8	-
	Felixstowe	1018.4	-6	NW	4	z_0	37	85	6	1	3	8	1	4-6	2500
	Gorleston	1018.2	-2	NW	2	ps	34	92	6	8	-	-	7-8	7-8	2500
	Mildenhall	1019.6	-10	NW	3	z_0	35	85	6	5	7	8	Tr	2-3	4000
	Cranwell	1020.7	-8	NWN	4	c	36	69	7	5	4	5	1	7-8	4000
3	Birmingham	1022.0	0	NNW	3	c	34	65	5	-	7	-	0	7-8	-
	Upper Heyford	1022.2	-2	NWW	3	z_0	34	75	5	-	9	6	0	9	l
4	Ross-on-Wye	1022.8	-6	NWN	2	bc	37	65	7	7	4	4	Tr	4-6	4000
5	Hartland Point	1023.5	0	N	2	c	41	75	8	5	-	-	7-8	7-8	2500
	Bristol	1023.9	-10	NNW	3	z_0	36	75	6	1	4	-	4-6	4-6	2500
	Portland Bill	1022.5	-6	N	2	bc	39	85	8	2	-	-	4-6	4-6	4000
	Plymouth	1023.4	-2	NNW	1	cjf	40	75	4	5	-	-	9+	9+	4000
	The Lizard	1023.8	0	NNE	2	c	41	92	6	8	2	-	7-8	10	1500
	Scilly (St. Mary's)	1024.0	0	N'E	4	cjp	46	75	8	8	6	-	4-6	7-8	1500
	Guernsey	1021.7	0	N	1	c	42	65	8	2	3	-	4-6	7-8	2500
6	Pembroke	1014.0	+20	NE'N	2	c	42	75	8	8	6	-	7-8	9	2500
7	Holyhead	1023.2	-8	NNW	4	c	43	75	9	7	3	-	4-6	7-8	2500
	Chester (Sealand)	1022.9	-12	NWN	1	bc	38	65	7	5	9	-	Tr	2-3	2500
8	Manchester	1022.4	-10	NWN	3	bc	36	66	7	-	3	-	0	2-3	-
10	Spurn Head	1018.9	-4	NW	5	c/ps	34	92	6	9	-	-	7-8	7-8	800
	Catterick	1021.1	-10	NWN	3	c	35	65	8	5	7	6	1	9+	4000
	Tynemouth	1021.0	-6	NNW	4	z_0	35	85	6	2	3	2	4-6	4-6	2500
11	St. Abbs Head	1020.6	-6	NW	5	c	35	85	8	8	6	9	4-6	7-8	2500
	Leuchars	1021.6	-10	WNW	3	c	35	75	8	8	7	9	4-6	9	4000
12	Renfrew (Abbots I.)	1023.1	-6	-	0	c	35	85	8	5	2	-	9	10	2500
	Eskdalemuir	1022.2	-8	N	2	e	33	65	8	5	7	-	7-8	9	2500
	Point of Ayre	1023.2	-4	N'E	4	c	41	75	8	8	7	5	2-3	9	2500
13A	Tiree	1023.6	-6	N	3	c	41	85	8	4	-	-	9	9	1500
13B	Stornoway	1024.7	-4	NNW	2	ss	33	97	6	5	2	-	9	10	1500
15	Dalwhinnie	*	-14	NW	3	sh	31	97	6	5	1	-	7-8	10	1500
	Aberdeen	1020.1	-8	NW	3	c/ps	32	92	8	9	3	-	4-6	7-8	1500
	Wick	1021.0	0	NW	5	cq	33	85	8	5	7	-	4-6	9+	1500
16	Lerwick	1017.0	-4	NWN	5	c	35	85	8	8	7	-	4-6	7-8	1500
17	Blacksod Point	1024.1	-14	W'N	2	bc	48	97	8	3	-	-	4-6	4-6	800
18	Malin Head	1024.6	-6	N	1	c	44	75	8	8	-	-	7-8	9	5700
	Aldergrove	1024.9	-8	NWW	2	z_0	38	92	6	8	-	-	9+	9+	4000
19	Birr Castle	1026.3	*	SW	1	c	36	97	7	5	1	-	7-8	10	2500
20	Valentia Obsy. †	1026.4	-10	-	0	ic_0	43	85	8	5	2	-	7-8	9+	5700
	Roches Point	1025.9	-10	N	3	bcjp	42	85	8	5	-	-	2-3	2-3	4000

OBSERVATIONS at 18h. G.M.T. 27th December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1021.1	+4	NW	2	z_0	33	75	6	5	-	1	2-3	2-3	4000		*
Croydon	1021.3	+2	W'N	1	bcf	32	85	3	-	9	-	0	4-6	-	1	*
S. Farnborough	1021.9	+4	W'N	1	z_0	32	75	6	-	3	-	0	4-6	-	1	*
Boscombe Down	1022.6	+6	NWN	3	z_0	33	97	6	5	-	-	4-6	4-6	2500	1	*
Calshot (Soton.)	1021.7	+2	NW	3	z_0	35	75	6	-	3	-	0	Tr	-	1	2
Lympne	1020.1	+4	NNW	4	z_0	32	85	6	5	-	1	4-6	4-6	1500	1	§ 2
Manston	1019.5	0	NNW	3	z_0	33	85	6	5	-	-	2-3	2-3	1500	1	*
Shoeburyness	1020.3	+4	NWN	3	b	33	85	6	-	4	-	0	Tr	-	3	*
Felixstowe	1018.9	+4	NW	3	z_0	34	85	6	5	-	1	2-3	2-3	2500	0	2
Gorleston	1018.2	0	W	2	bc	33	85	6	8	-	-	4-6	4-6	2500	1	2
Mildenhall	1020.0	+2	WNW	3	c/ps	32	97	6	5	-	-	9	9	4000	1	*
Cranwell	1020.5	0	NW	2	c	33	75	7	5	-	8	Tr	7-8	2500	3	*
Birmingham	1021.9	0	NW	2	b	33	65	5	-	3	-	0	1	-	1	*
Upper Heyford	1022.3	+2	NWN	2	m	30	75	4	-	7	-	0	2-3	-	1	*
Ross-on-Wye	1022.4	0	SWW	1	z_0	34	75	6	5	7	1	2-3	4-6	2500	1	*
Hartland Point	1023.0	+2	NNE	3	bc	41	65	8	5	-	-	4-6	4-6	2500	0	2
Bristol	1023.2	+6	NW	1	z_0	33	75	6	5	-	-	4-6	4-6	4000	1	*
Portland Bill	1022.3	+2	NNE	2	c	36	92	7	5	-	-	10	10	4000	1	2
Plymouth	1023.5	+2	NNE	1	m	37	85	4	5	-	-	2-3	2-3	4000	1	1
The Lizard	1023.5	0	-	0	bc	38	85	8	8	-	-	4-6	4-6	2500	1	2
Scilly (St. Mary's)	1024.0	+4	N'E	3	c	44	75	7	8	6	-	4-6	7-8	1500	1	3
Guernsey	1021.9	+4	NNW	1	bc	40	55	9	2	3	-	4-6	4-6	2500	0	2
Pembroke	1023.9	0	NNE	2	c	39	85	7	8	-	-	9	9	2500	1	1
Holyhead	1023.1	+2	NE'E	3	o/r	40	92	8	5	-	-	10	10	1500	1	2
Chester (Sealand)	1022.4	-2	-	0	m	32	97	4	2	-	-	4-6	4-6	2500	3	*
Manchester	1022.3	0	-	0	m	31	92	4	-	3	2	0	7-8	-	3	*
Spurn Head	1018.9	+2	NW	5	c	35	85	6	5	4	-	4-6	7-8	1500	1	3
Catterick	1021.2	-2	NWN	2	bc	33	75	7	5	3	-	2-3	4-6	4000	3	x
Tynemouth	1020.7	+4	NW	4	c/rs	34	86	6	8	-	-	7-8	7-8	2500	1	3
St. Abbs Head	1020.3	0	NNW	5	bc	36	85	8	8	6	-	4-6	4-6	2500	0	3
Leuchars	1021.9	+2	NW	1	c	34	75	7	5	3	-	4-6	7-8	4000	3	*
Renfrew (Abbots I.)	1022.7	+2	-	0	z_0	34	92	6	5	7	-	4-6	10	2500	1	*
Eskdalemuir	1022.3	+2	WNW	2	c	30	85	8	5	-	-	7-8	7-8	1500	3	*
Point of Ayre																4
Tiree	1022.8	0	N'E	3	dr	39	92	7	-	2	-	10	10	1500	1	3
Stornoway	1023.9	-4	NW	2	rs	34	92	6	5	2	-	2-3	10	1500	1	4
Dalwhinnie	*	+2	-	0	c	28	97	6	4	4	-	4-6	7-8	2500	4	*
Aberdeen	1020.5	+2	NWW	2	bc	30	85	7	5	-	1	1	2-3	2500	7	2
Wick	1020.6	0	WNW	3	bc	29	97	7	5	7	1	4-6	4-6	1500	4	2
Lerwick	1017.6	+2	NNE	5	c	35	97	8	8	7	-	4-6	7-8	800	8	*
Blacksod Point	1024.1	0	NWW	2	c	46	97	8	3	-	-	9	9	800	1	2
Malin Head	1023.3	+4	NW	3	bc	44	75	8	8	-	-	4-6	4-6	5700	0	2
Aldergrove	1023.7	-2	W'S	1	c	37	92	8	5	-	-	10	10	7200	1	*
Birr Castle	1025.3	*	SW	1	c	36	97	7	5	1	-	7-8	10	1500	1	*
Valentia Obsy. †	1026.0	-2	N'E	2	z_0	43	97	6	5	-	-	7-8	7-8	800	1	1
Roches Point	1025.4	-4	W	2	c	41	92	7	5	-	-	9+	9+	1500	1	2

PAST 24 HOURS. WEATHER.

Stations	7h.—13h. 27th (37)	13h.—18h. 27th (38)	18h. 27th 1h. 28th (39)	1h.—7h. 28th (40)
London (Kew)	bm_0xbcm_0	bccbcm	$bccm_0$	cm
Croydon	bcfcm	czbcfcf	bcbfx	bfxbm⊕
S. Farnborough	cbz_0cy	cyzhc	bcbxbx⊕	bm_0xbc
Boscombe Down	cbz_0cy	bcm_0cm_0	bcm_0bm_0	bm_0bcm_0
Calshot (Soton.)	cm_0xbm_0	bm_0cm_0	cm_0bm_0	bm_0bcm_0
Lympne	$cbc⊕m_0$	cm_0	$bm_0x⊕$	$bmxbm_0x$
Manston	cm_0	cm_0	cm_0bm_0	cm_0bcm_0x
Shoeburyness	bcm_0	$bcbcm_0$	bm_0x	bm_0xbcc
Felixstowe	bcm_0cm_0	bcm_0bm_0x	bm_0xs_0	$bm_0cm_0⊕$
Gorleston	$bccps_0$	cps_0sbc	cps_0	cx
Mildenhall	bcm_0	$m_0cps_0m_0$	c,bm_0	bm_0cm_0x
Cranwell	bz_0xcz_0bc	bcc	c,bmx	bm_0cm_0x
Birmingham	bcc	cbc	b	bcs_0s_0
Upper Heyford	bcm_0xbcm_0	cm_0bcm	bcm_0bm_0x	$bcmcm_0x$
Ross-on-Wye	cm_0bbc	bcc	cm_0bcm_0	cos
Hartland Point	c	cbc	bccp	cp_0
Bristol	bcm_0x	bcm_0xcbcm	$bccbm_0x$	bcm_0cxs_0
Portland Bill	bcbc	bcc	bcbc	bcc
Plymouth	cfcjf	$cjfbz_0z$	bmcfbcm	$bcmcm_0x$
The Lizard	$bccz_0$	bccbc	cbcc	c
Scilly (St. Mary's)	bcx	cp_0bcc	c	c
Guernsey	bcc	cbc	bcc	cbc
Pembroke	pgc	c	c	cq
Holyhead	bcc	circ	pr_0r_0rc	er_0rc
Chester (Sealand)	$bbcm_0xbc$	cm_0bcm	bccmcfx	$cfmf_0xss$
Manchester	bxbcmbc	$bccz_0z$	cffbcc	$cffs_0s_0$
Spurn Head	cqps	cpsc	cq	cq
Catterick	c	cbc	bcc	c
Tynemouth	cbc	$bccps_0$	c	c
St. Abbs Head	bcc	cbc	bcc	c
Leuchars	cx	cx	cbccx	cx,bx
Renfrew (Abbots I.)	$cfxcm_0c$	cm_0	$cidffis_0$	cs_0s_0ff
Eskdalemuir	cx	$cxps_0$	cx_0	cbcx
Point of Ayre	c		r_0rr	rsr_0
Tiree	c	cd_0D	cdrr	c
Stornoway	cpsss	crs_0	rs_0c	c
Dalwhinnie	csh	cis	*	
Aberdeen	$bcps_0$	$bcps_0$	bbcc	cps
Wick	cps_0q	cq,bc	$bcps_0$	c
Lerwick	cps	cps	cps	cps
Blacksod Point	bc	bcc	c	prc
Malin Head	cps_0vc	c	cpr_0c	c
Aldergrove	pr_0prs_0	cm_0ps_0c	cir_0c	cir_0rcm_0
Birr Castle	c	c	c	c
Valentia Obsy. †	cir_0	$ir_0dr_0cm_0$	m_0iDc	coc
Roches Point	bc	cz_0c	ir_0	idc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog „ less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_0, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_0/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_0, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
⊕ Solar halo. ⊕ lunar halo. Aurora.
With present weather is combined, whenever possible, the general character of the weather.
A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

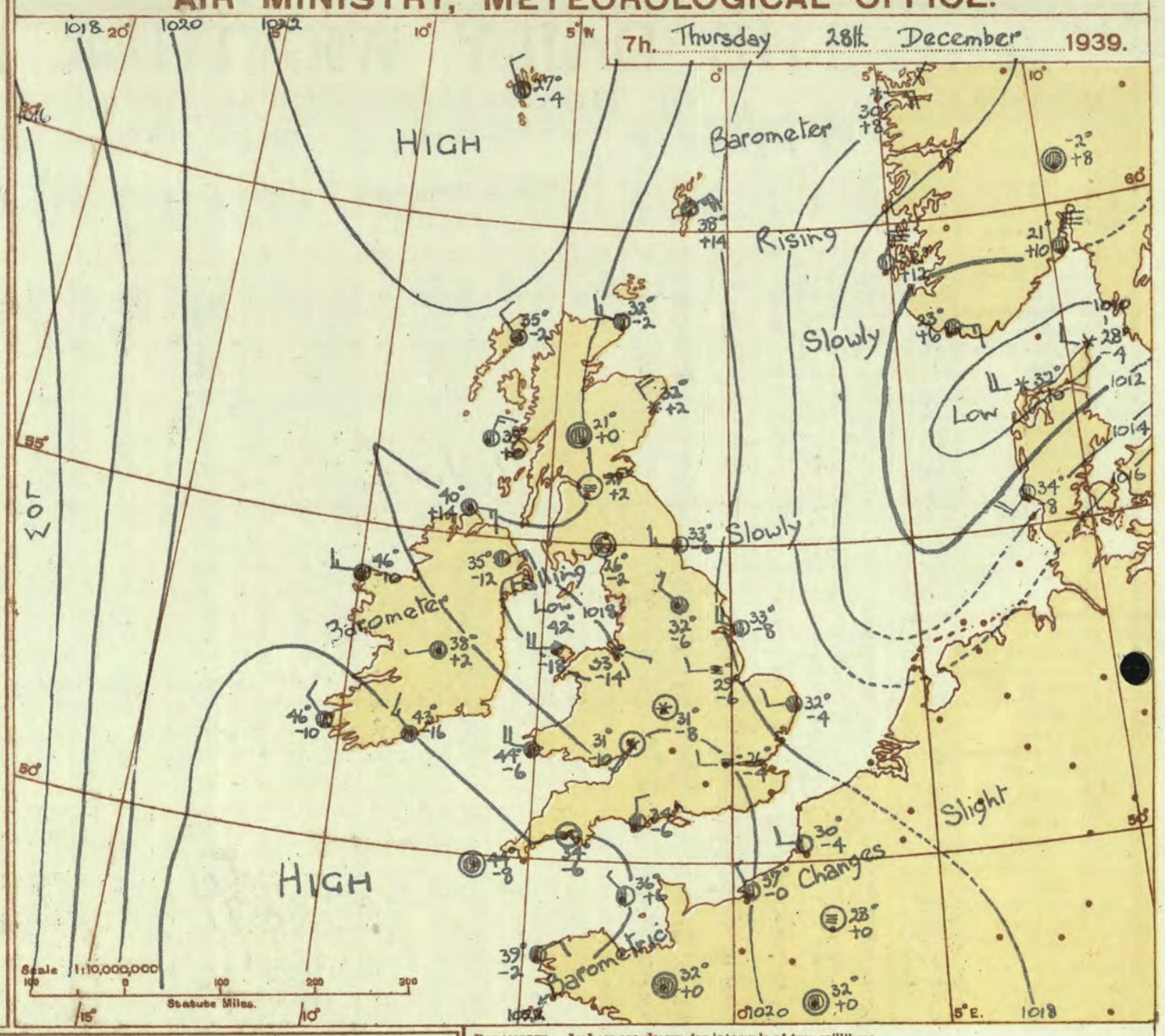
Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. „ wet.
2 .. „ flooded.
3 .. „ frozen hard and dry.
4 .. „ partly covered with snow or hail.
5 .. „ covered with ice or glazed frost.
6 .. „ covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. „ covered with snow, less than 6 ins., but ground frozen.
9 .. „ covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.



BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

DISTRICTS.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 28th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Wind variable light, finally northerly light to moderate; dull; some snow today; brighter conditions spreading from northwest; cold, sharp frost tonight especially towards the west.
5 S.W. England 6 South Wales ...	Wind west to northwest, light; cloudy, some slight occasional rain or sleet; snow on the hills; rather cold.
7 North Wales ... 8 N.W. England 9 N. Midlands ...	Wind northeast to north, moderate to light; some rain, sleet or snow at first, becoming fair; local fog tonight; cold with sharp frost at night.
10 N.E. England 11 S.E. Scotland 12 S.W. Scotland & Isle of Man. 13 A. W. Scotld. / B.N.W.Scotland. 14 Mid Scotland 15 N. E. Scotland 16 Orkneys and Shetlands	Wind northerly, light to moderate; snow showers in the North and near the East Coast; bright periods especially in the West; local morning fog; cold, sharp frost at night.
17 N. W. Ireland 18 N. E. Ireland	As 7 - 9.
19 S. E. Ireland 20 S. W. Ireland	Wind westerly light to moderate; mainly cloudy; light local rain; average temperature.

GENERAL INFERENCE.

A ridge of high pressure extends from Greenland to westward of the British Isles. A small depression over the Irish Sea and a trough of low pressure over the North Sea are both moving southeast. There will be a fall of snow in the Midlands and Southeast England today with fairer conditions spreading from the North. Local snow showers will occur in the North and it will be generally cold with sharp frost at night except in South Ireland.

FURTHER OUTLOOK.

Quiet with night frost and fog, but prolonged cold spell seems unlikely.

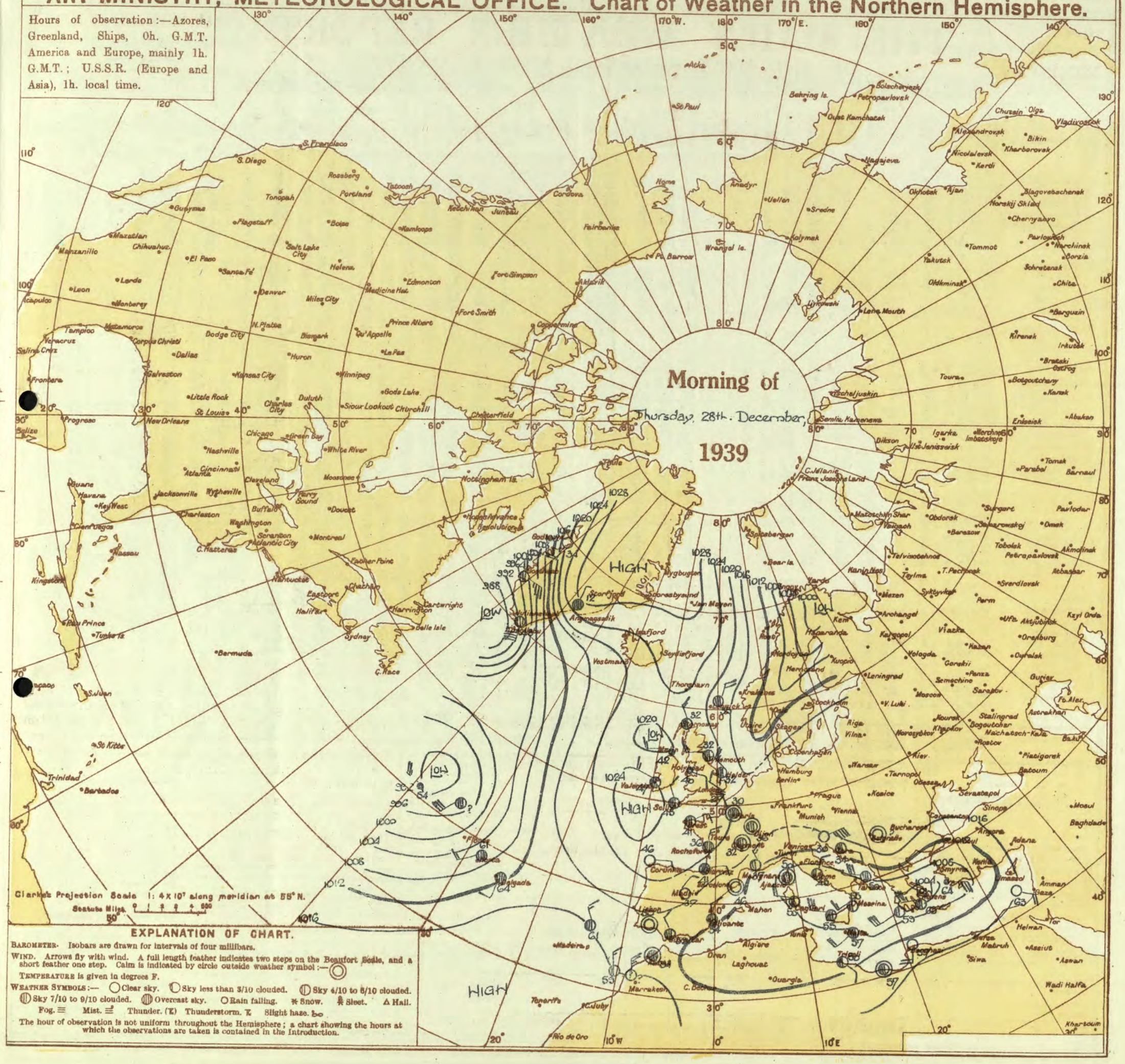
Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

Hours of observation :—Azores, Greenland, Ships, 0h. G.M.T. America and Europe, mainly 1h. G.M.T.; U.S.S.R. (Europe and Asia), 1h. local time.



EXPLANATION OF CHART.

BAROMETER. Isobars are drawn for intervals of four millibars.

WIND. Arrows fly with wind. A full length feather indicates two steps on the Beaufort Scale, and a short feather one step. Calm is indicated by circle outside weather symbol :—

TEMPERATURE is given in degrees F.

WEATHER SYMBOLS :— Clear sky. Sky less than 3/10 clouded. Sky 4/10 to 6/10 clouded. Sky 7/10 to 9/10 clouded. Overcast sky. Rain falling. Snow. Sleet. Hail. Fog. Mist. Thunder. (Thunderstorm. Slight haze.

The hour of observation is not uniform throughout the Hemisphere; a chart showing the hours at which the observations are taken is contained in the Introduction.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Thursday 28th December 1939.
No. 28525

OBSERVATIONS at 1 hr. G.M.T. 28th December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon	217	1021.2	-4	W'N	2	bcf	27	85	3	-	3	-	0	2-3	-
	S. Farnborough	226	1021.7	-4	W	1	z	25	92	5	-	-	2	0	Tr	-
	Boscombe Down	417	1022.3	-4	NNW	2	z	29	*	6	-	-	-	0	9	-
	Calshot (Sthmtn.)	8	1021.7	-2	NWN	2	z	34	85	6	-	7	-	0	Tr	-
	Lympne	346	1020.1	-2	NNW	4	m	29	85	4	-	-	-	0	0	-
	Manston	154	1019.3	-4	NW	3	z	31	85	6	-	3	-	0	2-3	-
2	Shoeburyness	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe	15	1018.5	-6	N'W	2	z	33	92	6	-	3	-	2-3	9	5700
	Gorleston	5	1018.3	0	WNW	3	c/ps	33	75	6	8	-	-	7-8	7-8	2500
	Mildenhall	19	1019.7	-6	WNW	2	z	27	97	5	-	-	-	0	0	-
	Cranwell	240	1020.3	-6	NW	2	m	28	85	4	-	-	-	0	0	-
3	Birmingham	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1022.3	-2	NW	2	m	27	85	4	-	-	-	0	0	-
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1022.6	-6	N	3	c	41	85	8	8	-	-	7-8	7-8	2500
	Bristol	209	1022.4	-6	WNW	1	z	31	85	5	5	-	-	4-6	4-6	5700
	Portland Bill	32	1021.9	-6	N	2	bc	35	92	8	5	-	-	2-3	2-3	4000
	Plymouth	82	1023.2	-6	-	0	m	34	85	4	5	-	-	4-6	4-6	5700
	The Lizard	240	1023.3	-6	NNW	1	c	40	85	7	8	9	-	4-6	9+	2500
	Scilly (St. Mary's)	163	1023.3	-10	N	2	c	45	75	8	8	7	-	4-6	9+	2500
	Guernsey	175	1021.8	-8	NNW	1	c	40	65	7	8	7	-	7-8	9	2500
6	Pembroke	142	1022.7	-6	N'E	2	c	41	85	8	8	-	-	7-8	7-8	2500
7	Holyhead	26	1021.3	-16	SE'E	2	r°r°	40	97	7	6	2	-	9	10	800
	Chester (Sealand)	16	1021.7	-10	-	0	of	32	92	3	5	-	-	10	10	4000
8	Manchester	70	1021.6	-10	SSW	1	oF	29	92	3	5	-	-	10	10	2500
10	Spurn Head	29	1018.9	0	NW	5	cq	32	92	6	5	8	-	4-6	7-8	1500
	Catterick	175	1020.3	-12	NW	2	c	31	75	8	-	-	2	0	9	-
	Tynemouth	108	1021.0	-6	W	3	c	32	92	6	8	3	-	4-6	7-8	2500
11	St. Abbs Head	280	1019.7	-10	NW	3	c	35	85	8	8	6	-	7-8	10	2500
	Leuchars	36	1020.5	-12	W	2	c	31	92	8	5	3	-	4-6	7-8	5700
12	Renfrew (Abbots I.)	19	1021.9	-10	-	0	of	32	97	3	5	-	-	10	10	4000
	Eskdalemuir	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre	30	1021.3	-8	NE'N	2	rr	39	92	7	8	2	-	4-6	10	1500
13A	Tiree	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway	80	1022.5	-6	NNW	3	c/rdh	32	85	8	5	5	-	7-8	10	2500
15	Dalwhinnie	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick	81	1019.9	-8	WNW	3	c	32	92	7	8	7	6	2-3	9+	1500
16	Lerwick	156	1017.8	+2	N'E	4	c/ps	35	75	7	8	7	-	4-6	7-8	1500
17	Blacksod Point	18	1023.1	-4	W	1	c	42	92	8	-	5	-	0	7-8	-
18	Malin Head	84	1020.2	-18	W	3	r°r°	42	92	6	6	-	-	9	9	1500
	Aldergrove	268	1021.0	-22	SSW	2	c	36	85	7	5	-	-	10	10	2500
19	Birr Castle	173	1023.5	*	SSW	1	c	36	92	7	5	-	-	10	10	2500
20	Valentia Obsy.	30	1024.3	-10	NWN	3	c	47	75	8	5	-	-	10	10	2500
	Roches Point	22	1024.0	-10	W	2	r°	40	97	7	6	2	-	7-8	9+	1500

OBSERVATIONS at 7 hr. G.M.T. 28th December — PAST 24 HOURS

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Temp. Max. Day 7h–18h °F. (31)	Temp. Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 27th Hrs. (36)
London (Kew)	1020.5	-8	SW'W	1	z	29	97	5	5	·	8	2-3	9	2500	3	*	36	27	19	-	Tr	2.5
Croydon	1020.6	-4	W	2	m	26	85	4	-	4	6	0	9+	-	3	*	35	25	*	-	-	*
S. Farnborough	1021.2	0	-	0	z	24	97	6	5	1	-	1	7-8	2500	3	*	38	21	15	-	-	4.8
Boscombe Down	1021.1	-2	-	0	z	28	85	5	5	-	-	9+	9+	2500	3	*	37	25	18	-	-	4.9
Calshot (Sthmtn.)	1020.9	-2	NW	1	z	29	85	5	5	7	-	4-6	7-8	5700	1	1	39	28	25	-	-	5.0
Lympne	1019.9	+2	NWN	2	z	27	92	5	-	3	-	0	7-8	-	3	§1	34	27	23	-	-	1.8
Manston	1018.5	-6	NNW	3	z	29	85	6	-	3	-	0	4-6	-	3	*	37	29	26	-	-	0.2
Shoeburyness	1019.3	0	NW'W	2	c	28	75	7	-	5	-	0	9+	-	3	*	36	26	11	-	-	4.5
Felixstowe	1017.8	-10	NW	2	z	29	85	6	5	-	6	Tr	9	4000	4	2	37	28	25	-	Tr	4.2
Gorleston	1017.5	-4	W	2	c	32	85	6	8	-	-	9+	9+	2500	8	2	38	30	27	2	0.4	*
Mildenhall	1019.1	-6	W	2	z	26	97	5	-	7	-	0	9+	-	3	*	36	22	18	Tr	0.1	4.2
Cranwell	1019.1	-6	W	2	m	29	85	4	-	2	-	0	10	-	3	*	37	27	24	Tr	-	4.6
Birmingham	1019.9	-8	-	0	s°s°	31	92	4	5	-	-	10	10	1500	7	*	35	29	21	*	0.3	2.8
Upper Heyford	1020.8	-2	NW	1	m	29	85	4	-	3	-	0	10	-	3	*	36	25	16	-	-	*
Ross-on-Wye	1019.8	-10	-	0	s°s°	31	97	4	5	-	-	10	10	800	4	*	37	28	18	-	1	4.1
Hartland Point	1020.4	-12	WNW	3	c	43	75	8	8	2	-	7-8	10	1500	1	2	42	39	36	-	1	0.9
Bristol	1020.8	-10	-	0	is°	32	97	6	5	-	-	10	10	1500	3	*	38	27	14	-	Tr	4.1
Portland Bill	1020.8	-6	N	2	c	34	92	7	5	-	-	10	10	2500	1	3	46	32	*	-	-	*
Plymouth	1022.0	-6	-	0	z	34	92	5	5	-	-	9+	9+	4000	1	0	42	33	23	-	-	1.6
The Lizard	1022.7	-8	-	0	c	39	85	8	8	-	-	7-8	7-8	1500	0	2	42	36	*	-	-	1.9
Scilly (St. Mary's)	1022.6	-8	-	0	c	44	75	8	5	7	-	7-8	10	2500	1	1	47	42	*	0.1	Tr	3.0
Guernsey	1021.5	+6	NW'N	1	bc	36	75	7	2	2	9	4-6	4-6	2500	0	2	43	36	27	-	-	1.6
Pembroke	1020.4	-6	WNW	4	cq	44	85	8	8	-	-	9	9	1500	1	2	43	37	*	-	-	0.5
Holyhead	1018.0	-18	W	4	r°r°	42	92	6	6	-	-	10	10	800	7	3	43	38	37	1	2	2.3
Chester (Sealand)	1019.3	-14	ESE	1	s°s°	33	92	4	-	2	-	10	10	1500	8	*	38	29	24	-	3	3.8
Manchester	1019.7	-10	SSE	1	s°s°	30	97	2	-	2	-	10	10	1500	8		36	23	15	-	1	2.4
Spurn Head	1017.6	-8	WNW	4	c	33	85	7	5	-	-	10	10	1500	4	3	35	31	*	2	1	0.0
Catterick	1018.8	-6	NW	2	c	32	75	8	5	-	9	9+	9+	4000	3	*	36	30	23	-	-	0.2
Tynemouth	1019.8	-6	W	3	c	33	85	6	8	-	-	7-8	7-8	2500	3	2	36	31	26	Tr	-	*
St. Abbs Head	1018.3	-6	WNW	3	c	35	85	8	8	6	-	4-6	9+	2500	0	2	37	34	*	Tr	-	*
Leuchars	1019.5	-2	W	2	bc	31	92	9	5	3	-	1	2-3	5700	3	*	(35)	30	23	-	-	0.1
Renfrew (Abbots I.)	1020.4	+2	-	0	f+	27	97	2	-	-	-	0	0	-	4	*	35	27	28	-	Tr	0.0
Eskdalemuir	1019.7	-2	-	0	bc	26	85	8	-	3	-	0	4-6	-	3		33	26	20	Tr	-	0.0
Point of Ayre	1018.6	-10	ESE	4	r°r°	35	97	7	8	2	-	7-8	10	1500	1	2	41	34	*		6	0.8
Tiree	1020.7	0	NNE	3	c	39	75	8	8	-	-	7-8	7-8	1500	0	3	41	35	33	1	4	0.0
Stornoway	1021.9	-2	NW	2	c	35	92	8	5	7	-	4-6	9+	2500	4	1		32	*	1	0.2	0.0
Dalwhinnie	*	0	-	0	c	21	97	7	5	4	-	9	10	2500	0	*	31	(21)	*	0.4	-	0.1
Aberdeen	1019.2	+2	NW	4	ps	32	92	5	6	-	8	9	10	1500	7	2	33	29	25	1	0.5	0.4
Wick	1019.4	-2	WNW	3	c	32	97	7	5	1	-	4-6	10	1500	4	1	35	29	*	Tr	Tr	*
Lerwick	1019.4	+14	NE	5	c/ps	38	65	8	8	7	-	4-6	7-8	800	8	*	36	33	*	0.1	0.2	1.7
Blacksod Point	1021.2	-10	W	3	c	46	92	7	8	-	-	10	10	800		3	50	(42)	*	1	1	*
Malin Head	1019.7	+14	E	3	c/pr	40	85	7	8	-	-	9	9	2500	0	3	47	39	*	0.2	4	0.0
Aldergrove	1018.2	-12	NE'E	3	c/r	35	97	6	5	3	-	9	10	800	1	*	38	35	31	0.2	1	0.[illegible]
Birr Castle	1021.3	*	WSW	1	c	38	97	7	5	-	-	10	10	2500	1	*	37	30	30	-	0.1	0.4
Valentia Obsy.	1023.2	-10	NW'N	2	c	46	75	8	7	-	7	4-6	10	4000	1	2	44	43	36	1	0.2	0.5
Roches Point	1021.6	-16	NW	3	c/d	43	97	7	5	-	-	9+	9+	1500	1	2	45	39	*	-	1	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h.)	Weather Afternoon	Weather Night	Temp. Day Max. °F.	Temp. Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
Kew	18	bmxbcmz	bcebcmz	bccmz		27	19	-	Tr	2.5	*	*	
Croydon	217	bcfem	ezbcfcf	bcbf	35	25	*	-	-	*	*	*	
Greenwich (Royal Observatory)	149												
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*									*
Regents Pk. (Botanic Gardens)‡	168	*	*	*									*
Camden Square	110			*									*
Kensington	80			*						*	*		*
Hampstead Observatory	450										*		*

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 28th

South Kensington Max.	Time.	Min.	Time.

Kew Observatory Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 27th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 28th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1019.9	SE	2	z	34	1019.7	-	0	m	28	*	28	-	-
Brussels														
Berlin														
Zürich														
Rome	1002.6	NNE	1	c	52						*	*	0.5	

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 —Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 ,,
2 Fog	550 ,,
3 Moderate fog	1,100 ,,
4 Mist or haze	1½ miles.
5 Poor visibility	2½ ,,
6 Moderate ,,	6¼ ,,
7 Good ,,	12½ ,,
8 Very good ,,	31 ,,
9 Excellent ,,	beyond 31m.

COLUMN 30 —Code for State of Sea.

0 Calm.	5 Very rough.
1 Smooth.	6 High.
2 Slight.	7 Very high.
3 Moderate.	8 Precipitous.
4 Rough.	9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

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AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Friday 29th. December, 1939.

No. 28,526

OBSERVATIONS at 13h. G.M.T. 28th. December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1018·2	-10	SSW	1	sf	32	85	2	5	-	-	10	10	800
	Croydon	1018·5	-18	-	0	s$_o$s	31	92	4	-	2	-	10	10	1500
	S. Farnborough	1018·1	-30	SE'E	1	ss	31	97	3	-	2	-	10	10	800
	Boscombe Down	1017·8	-30	S'W	3	sf	31	97	3	5	-	-	10	10	220
	Calshot (Soton.)	1018·2	-26	SW'S	2	ss	34	97	4	5	-	-	10	10	1500
	Lympne	1018·7	-14	NW	3	z$_o$	30	85	5	-	2	-	0	10	-
	Manston	1017·8	-18	WNW	3	m	31	85	4	-	7	-	0	10	-
2	Shoeburyness	1018·6	-14	W'N	2	of	32	85	3	5	-	-	10	10	5700
	Felixstowe	1017·3	-12	WNW	3	z$_o$	32	75	5	-	2	-	10	10	5700
	Gorleston	1016·5	-16	W'S	3	s$_o$s	32	97	4	8	-	-	10	10	1500
	Mildenhall	1017·6	-8	W	2	m	31	97	4	-	7	-	0	9	-
	Cranwell	1017·8	-14	W	2	m	32	85	4	5	2	-	7-8	10	7200
3	Birmingham	1016·8	-2	SE	1	is$_o$	31	92	3	5	-	-	10	10	800
	Upper Heyford	1017·6	-28	SE	1	sf	30	92	3	-	2	-	10	10	450
4	Ross-on-Wye	1015·9	-30	N'W	1	f	34	55	2	8	-	-	10	10	450
5	Hartland Point	1016·9	-28	WNW	3	c	45	85	9	8	2	-	7-8	10	1500
	Bristol	1017·8	-26	SE	2	r$_o$r$_o$	36	97	6	5	2	-	7-8	10	450
	Portland Bill														
	Plymouth	1018·3	-30	W	1	ojf	42	85	4	5	-	-	10	10	800
	The Lizard	1019·3	-20	W	4	cpr	46	85	8	8	2	-	7-8	10	1500
	Scilly (St. Mary's)	1020·7	-16	NW'W	4	cpr	47	85	8	8	6	-	7-8	9+	1500
	Guernsey	1019·4	-18	W'S	1	ir	42	85	7	5	-	-	10	10	2500
6	Pembroke														
7	Holyhead	1017·8	+6	NE'N	5	cpr	39	92	6	8	-	-	10	10	1500
	Chester (Sealand)	1018·2	-10	-	0	z$_o$	33	92	5	-	2	-	10	10	1600
8	Manchester	1018·6	-10	N'E	1	of-	31	97	2	5	-	-	10	10	2500
10	Spurn Head	1016·9	-4	NW	3	c	34	85	6	5	-	-	10	10	2500
	Catterick	1018·4	-2	N'E	3	c	35	75	7	5	-	-	9+	9+	4000
	Tynemouth	1018·7	-6	NW	3	c/s	34	97	6	8	-	-	9	9	2500
11	St. Abbs Head	1019·2	+6	NNW	4	c	37	92	8	8	6	-	4-6	7-8	1500
	Leuchars	1020·1	-2	NW	3	c	35	75	7	5	7	-	4-6	7-8	4000
12	Renfrew (Abbots I.)	1020·9	-4	-	0	c	32	85	7	5	7	-	4-6	9+	4000
	Eskdalemuir	1019·5	0	N	2	c	33	75	8	5	7	-	2-3	9+	2500
	Point of Ayre	1019·5	0	NE	3	c	37	85	8	2	3	-	1	7-8	2500
13A	Tiree	1021·1	-2	N'E	2	c	40	65	8	8	7	-	4-6	7-8	1500
13B	Stornoway	1022·8	0	N	1	c/s	33	97	7	6	7	-	7-8	10	2500
15	Dalwhinnie	*	+2	N	1	c	28	97	8	5	-	-	10	10	4000
	Aberdeen	1020·3	+10	WNW	3	cjp	32	97	6	8	7	-	2-3	9+	2500
	Wick	1021·2	+10	NE	1	cpsh	37	92	8	6	7	9	2-3	7-8	800
16	Lerwick	1021·6	+6	NE	5	bc	38	75	8	8	7	-	4-6	4-6	1500
17	Blacksod Point	1021·4	-2	N	1	c	46	92	8	5	-	-	10	10	800
18	Malin Head	1021·2	-2	N	3	c	41	65	8	8	-	-	7-8	7-8	5700
	Aldergrove	1020·6	-4	N'W	1	bc	37	85	7	2	2	6	Tr	2-3	2500
19	Birr Castle	1020·9	*	NNE	1	c	41	85	7	5	1	-	7-8	10	2500
20	Valentia Obsy. †	1022·7	-10	NW'W	4	c	49	65	9	8	7	-	2-3	9	2500
	Roches Point	1020·4	-16	NW	4	c	47	85	8	5	1	-	7-8	9	1500

OBSERVATIONS at 18h. G.M.T. 28th. December

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1016·6	-2	ENE	3	sf	31	97	3	-	2	-	6	10	800	8	*
Croydon	1016·8	-2	-	0	sf	30	97	3	-	2	-	6	10	800	8	*
S. Farnborough	1016·3	+2	NE	3	rs	31	92	3	-	2	-	10	10	800	8	*
Boscombe Down	1015·4	-2	NE'E	2	F+	32	97	1	-	-	-	10	10	<150	8	*
Calshot (Soton.)	1014·6	-12	NNE	2	df	35	97	3	5	-	-	10	10	1500	6	3
Lympne	1017·1	-10	NE'N	1	ss	29	97	4	-	2	-	10	10	2500	2	§0
Manston																*
Shoeburyness	1016·7	-10	WNW	1	f/s	30	92	3	5	-	-	10	10	2500	8	*
Felixstowe	1015·8	-8	NW	2	z$_o$	32	86	5	-	2	-	2-3	10	4000	4	2
Gorleston	1015·4	-6	W'N	2	c/s	32	85	8	6	-	-	10	10	1500	8	2
Mildenhall	1016·4	-4	WNW	2	is$_o$	30	97	5	-	7	-	0	7-8	-	3	*
Cranwell	1017·0	-6	NW	2	z$_o$	31	92	5	5	-	-	2-3	2-3	2500	3	*
Birmingham	1017·7	0	N	2	of	30	92	3	5	-	-	10	10	800	8	*
Upper Heyford	1017·5	+2	ENE	1	f/s	30	97	3	-	2	-	10	10	450		*
Ross-on-Wye	1017·2	+10	NE	2	m	33	92	4	5	-	-	10	10	800	6	*
Hartland Point	1016·4	-2	NW	3	c/r	42	97	8	6	2	-	4-6	10	1500	1	3
Bristol	1016·7	+12	N	2	m	33	97	4	5	2	-	7-8	10	1500	6	*
Portland Bill	1014·2	-12	NW	3	c	44	92	7	5	-	-	10	10	2500	1	2
Plymouth	1016·3	-6	NW	2	c/r	45	85	6	5	-	-	7-8	7-8	800	1	2
The Lizard	1017·8	-6	WNW	4	cpr	46	92	8	8	2	-	9	10	1500	1	2
Scilly (St. Mary's)	1019·1	-4	NW	4	c	47	85	8	8	6	-	7-8	10	1500	1	2
Guernsey	1014·7	-20	WNW	1	c/r	47	86	7	8	-	-	9+	9+	1500	1	2
Pembroke	1017·7	0	NE	4	o	40	85	7	8	-	-	10	10	1500	1	2
Holyhead	1019·5	+10	NE'N	3	bc	38	78	8	5	-	-	4-6	4-6	2500	1	2
Chester (Sealand)	1019·2	+6	WNW	1	cf	30	85	3	5	-	-	9+	9+	2500	7	*
Manchester	1019·1	+6	NNW	2	bcf+	26	97	2	5	-	-	2-3	2-3	2500	8	*
Spurn Head	1016·5	-2	NW'N	3	bc	35	92	7	5	4	-	2-3	4-6	2500	4	2
Catterick	1018·8	+2	N'W	3	z$_o$	33	85	6	5	-	-	Tr	Tr	4000	4	*
Tynemouth	1019·2	+6	NW	3	bc	34	85	6	2	-	-	4-6	4-6	2500	4	3
St. Abbs Head	1020·0	+6	NE	3	bc	39	75	8	2	4	-	2-3	2-3	2500	0	2
Leuchars	1021·5	+10	NW	2	b	32	75	7	4	-	-	Tr	Tr	5700	3	*
Renfrew (Abbots I.)	1022·2	+10	-	0	z$_o$	30	85	5	5	-	-	1	1	4000	1	*
Eskdalemuir	1021·3	+14	-	0	b	24	85	8	5	-	-	1	1	2500	3	*
Point of Ayre	1020·7	+8	NE'E	4	c	37	75	7	5	-	-	9+	9+	2500	1	3
Tiree																
Stornoway	1023·9	+10	N	2	c	32	92	7	5	7	-	4-6	7-8	2500	4	1
Dalwhinnie	*	+12	-	0	bc	23	97	8	4	4	-	2-3	2-3	4000	4	*
Aberdeen	1021·7	+10	NW	4	bc	31	92	8	3	-	-	2-3	2-3	1500	7	2
Wick	1022·7	+12	W	3	c/ps	30	92	7	6	7	8	4-6	7-8	1500	4	1
Lerwick	1022·5	+2	N	3	bc	35	85	8	8	7	-	4-6	4-6	1500	8	*
Blacksod Point	1026·2	+4	S	3	c	43	85	8	-	7	-	0	7-8	-	0	3
Malin Head	1021·8	+6	NE'E	2	bc	39	85	7	2	-	-	4-6	4-6	5700	0	3
Aldergrove	1021·4	+8	-	0	bc	32	85	7	5	-	-	4-6	4-6	4000	1	*
Birr Castle	1021·7	+4	NNE	1	c	35	97	8	5	-	-	7-8	7-8	2500	1	*
Valentia Obsy. †	1021·3	-6	N	4	c	46	85	8	5	-	-	10	10	1500	1	2
Roches Point	1020·2	0	N	3	ir$_o$	44	97	7	6	2	-	7-8	10	1500	1	3

PAST 24 HOURS.

Stations	Weather 7h.—13h. 28th. (37)	Weather 13h.—18h. 28th. (38)	Weather 18h. 28th. to 1h. 29th. (39)	Weather 1h.—7h. 29th. (40)
London (Kew)	cfofss	ofss	ofsem	bcbm$_o$
Croydon	cmssfm		ssfcm	cmbcxm$_o$
S. Farnborough	bcssfo	ssr$_o$fo	r$_o$sfofb	bFF
Boscombe Down	bssmssf	issfidof	ofbcm	bm
Calshot (Soton.)	cxm$_o$ossm	ossr$_o$df	dfcm$_o$q	bm$_o$fm$_o$
Lympne	bcm$_o$xom$_o$		om$_o$ssx	fcm$_o$x
Manston	cm$_o$xcm		lsfcm$_o$	cm$_o$bcm$_o$x
Shoeburyness	cxfo	omss$_o$	oxfm	bm$_o$x
Felixstowe	cm$_o$	cm$_o$om$_o$	cm$_o$bm	psb
Gorleston	cpssss	ois$_o$	obc	bccphr
Mildenhall	cm$_o$x	cmxm$_o$is$_o$	cm$_o$fbmx	bmpscmx
Cranwell	cm	cmm$_o$bc	bmmxm$_o$	bcmcbc
Birmingham	ossis$_o$f	s$_o$of	cfb	bm
Upper Heyford	cssm	pissmoisf	ofmbcmbf	bfbmm$_o$m
Ross-on-Wye	ssmsfomf	ofom	omcm	cm$_o$bx
Hartland Point	c	id$_o$r$_o$	c	cbc
Bristol	cisr$_o$srr	d$_o$Fm	cm$_o$mmb	bxmfm
Portland Bill		c	c	bcbz$_o$
Plymouth	cmpfifm	cir$_o$m$_o$c	cifbcm$_o$	bm$_o$x
The Lizard	cprc	cpr$_o$c	cbc	bcx
Scilly (St. Mary's)	cp$_o$	cp$_o$c	cp$_o$c	cbc
Guernsey	bccir	crrir	cPR	cbc
Pembroke		o	cbc	bx
Holyhead	rrr$_o$c	cm$_o$r$_o$bc	bccbc	bcb
Chester (Sealand)	cmfmss	cm$_o$mff	bmx	bmxm$_o$x
Manchester	offssss	offmfbff	bFF	bFF
Spurn Head	cs$_o$	r$_o$psc	psqc	cq
Catterick	c	psm$_o$bm$_o$	psphs	b
Tynemouth	coif	cbc	bccpsc	cbc
St. Abbs Head	pshc	bcb	psbc	phrbc
Leuchars	bxcx	cxbcm$_o$x	bm$_o$xbx	bx
Renfrew (Abbots I.)	bfcffm$_o$	cbcm$_o$bcx	bffbm$_o$x	bbcm$_o$x⊕
Eskdalemuir	bccx	cxbx	bc	bc
Point of Ayre	c	c	b	bx
Tiree	bcc			
Stornoway		c	cbbc	bcc
Dalwhinnie	c	c	b·	bbccmz
Aberdeen	cps$_o$	ps$_o$bc		cbc
Wick	psh$_o$c	cps$_o$c	cbbc	c
Lerwick	cpsbc	bccbc	bcc	crr (gale)
Blacksod Point	c	c	b	b
Malin Head	cpr$_o$rc	cpr$_o$cjpc	bc	bc
Aldergrove	cm$_o$r$_o$prhb	bbc	bccbx	bx
Birr Castle	c	c	b	bx
Valentia Obsy. †	c	cpr$_o$c	c	c
Roches Point	c	idir$_o$	cbc	bbcx

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_o$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_o$/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r$_o$, slight rain. rr, continuous rain.
<, less than (for cloud height). gale.
⊕ Solar halo. ⓘ lunar halo. Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9+" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

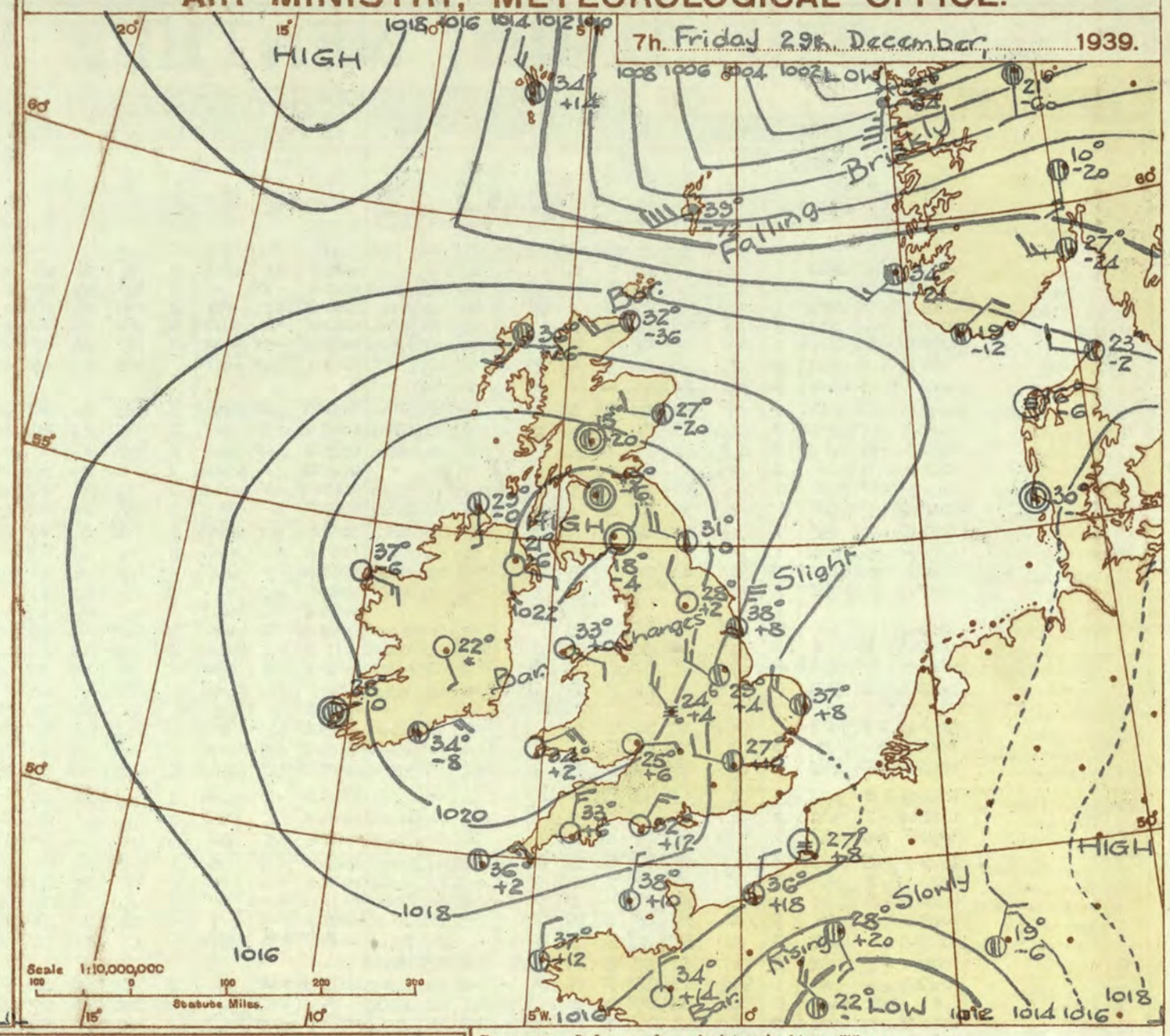
Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 29th December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Wind north light or moderate becoming west tomorrow; fine apart from snow showers near East coast today; cold with severe frost tonight and fog locally.
5 S.W. England 6 South Wales ... 7 North Wales ... 8 N.W. England 9 N. Midlands ...	Wind northeast or variable light, becoming southwest; fair, apart from local fog; cold, with frost tonight.
10 N.E. England	Wind west moderate, becoming strong; fair; sleet tomorrow; rather cold.
11 S.E. Scotland	
12 S.W. Scotland & Isle of Man.	Wind west moderate, becoming strong; sleet and snow tomorrow morning; cold.
13 A. W. Scotland.	Wind west moderate to fresh; fair; becoming milder.
13 B. N.W. Scotland.	Wind west moderate to fresh; sleet showers tomorrow; temperature rising today.
14 Mid Scotland	
15 N. E. Scotland 16 Orkneys and Shetlands	Wind west moderate, freshening to strong to gale in north. veering north fresh or strong; a period of sleet and snow followed by sleet showers; temperature rising over Scotland today.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Wind south to southwest moderate; fair; rather cold, with frost locally tonight; temperature tending to rise.

BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

Pressure is lowest over Northern Europe and highest over Southeast Europe. A small anticyclone centred over Southwest Scotland is moving quickly south-southeast and a trough of low pressure over the Shetlands will develop a depression moving southeast and then east. Conditions are favourable for cyclonic development to the northwest of the British Isles.

FURTHER OUTLOOK.

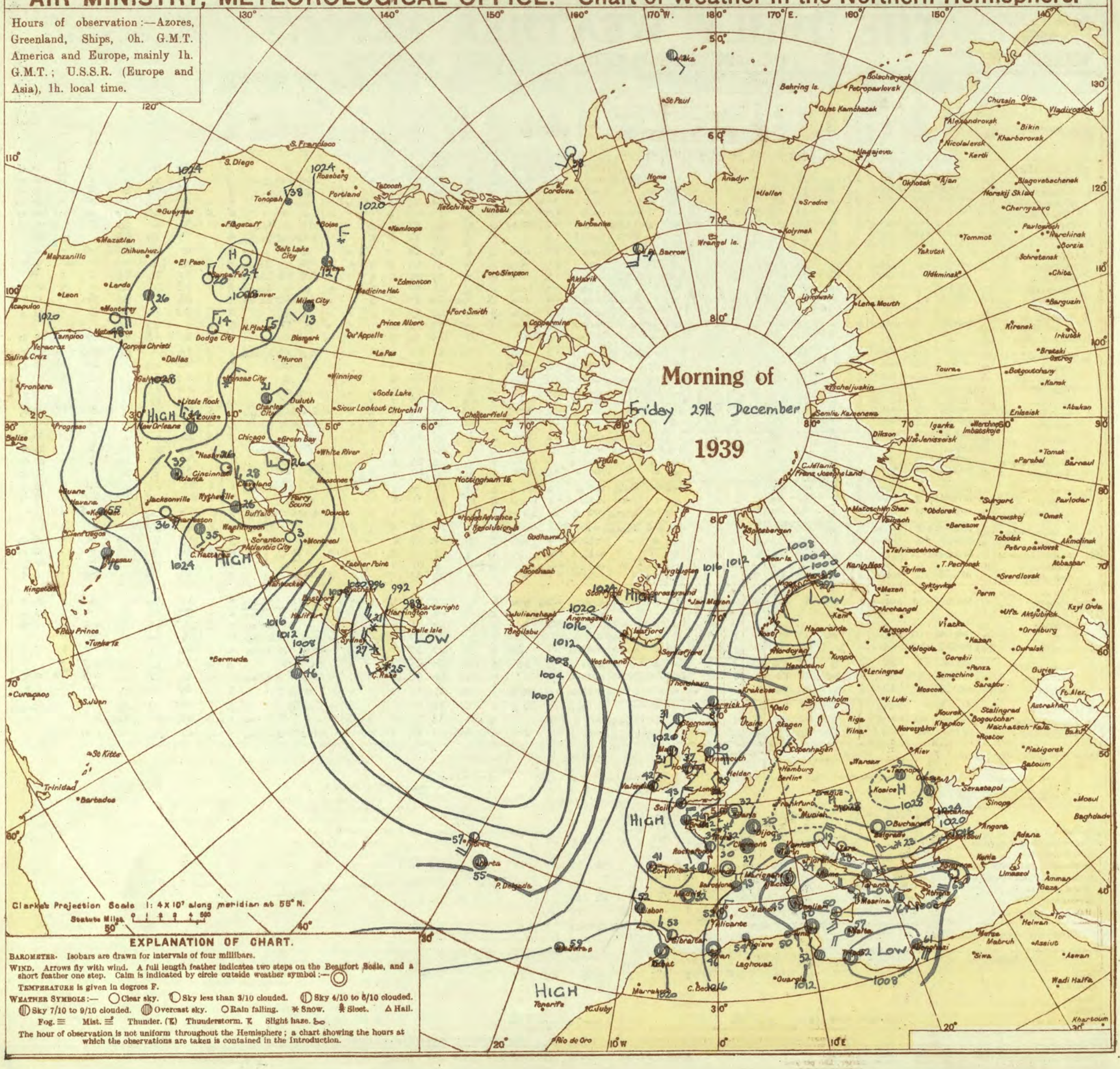
Mainly fair in Southern England but rather unsettled elsewhere; less cold than of late, except in North Scotland.

Forecasts issued at 1030.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



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AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Friday 29th December 1939.

No. 28,526.

OBSERVATIONS at 1 hr. G.M.T. 29th December

District.	Stations.	Height above M.S.L. in feet.	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind Direc. (3)	Wind Force. 0–12 (4)	Weather. (5)	Temp. °F. (6)	Humid. % (7)	Visibility. 0–9 (8)	Cloud Form Low. (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base. (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1016.7	+2	N	2	m	28	97	4	8	-	-	10	10	800
	S. Farnborough	226	1016.9	0	NW	2	m	32	97	4	-	-	-	0	0	-
	Boscombe Down	417	1017.9	+8	N	3	m	26	92	4	-	-	-	0	0	-
	Calshot (Sthmtn.)	8	1016.6	+6	N	4	z	32	85	5	5	-	-	Tr	Tr	1500
	Lympne ...	346	1016.0	-4	N'W	2	f+	30	97	2	-	-	-	10	10	<150
	Manston ...	154	1014.7	-10	N	3	z	33	85	5	5	-	-	9	9	800
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1014.8	-6	NW	2	m	32	92	4	-	3	-	0	Tr	-
	Gorleston ...	5	1014.0	-10	W'N	3	bc	31	85	6	3	-	3	4-6	4-6	2500
	Mildenhall ...	19	1016.1	-4	NWW	3	m	27	97	4	-	7	-	0	1	-
	Cranwell ...	240	1017.3	-2	NW	4	z	29	92	5	5	-	-	1	1	2500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1018.4	+2	NNW	2	f	24	92	3	-	-	-	0	0	-
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1018.4	+12	NE	3	c	36	75	7	8	-	-	9	9	2500
	Bristol ...	209	1019.1	+12	NE	3	m	30	92	4	-	-	-	0	0	-
	Portland Bill ...	32	1016.6	+14	NE	3	c	38	85	7	2	-	-	10	10	4000
	Plymouth ...	82	1018.5	+14	ENE	1	bc	34	75	6	5	-	-	2-3	2-3	5700
	The Lizard ...	240	1018.0	0	NNE	2	bc	36	85	7	4	9	-	4-6	4-6	2500
	Scilly (St. Mary's)	163	1018.2	-6	NNE	4	c	43	78	7	8	7	-	4-6	9+	2500
	Guernsey ...	175	1015.7	+12	N'E	1	c	38	75	6	8	-	-	10	10	800
6	Pembroke ...	142	1020.8	+2	ENE	4	bc	38	85	7	8	-	-	2-3	2-3	1500
7	Holyhead ...	26	1021.1	+2	E	1	bc	37	92	8	7	-	-	2-3	2-3	2500
	Chester (Sealand)	16	1020.9	0	NW	1	m	27	*	4	-	-	-	0	0	-
8	Manchester ...	70	1020.8	+4	SSW	1	F+	18	88	1	-	-	-	0	0	-
10	Spurn Head ...	29	1016.1	0	NE	4	bc	36	86	6	8	-	-	4-6	4-6	800
	Catterick ...	175	1019.5	+2	NW	3	b	31	85	8	4	-	-	1	1	1500
	Tynemouth ...	108	1021.4	+6	E	4	c	40	65	7	2	-	-	7-8	7-8	2500
11	St. Abbs Head	280	1020.4	+2	NNW	2	ps	35	92	8	3	6	-	4-6	4-6	2500
	Leuchars ...	36	1021.8	-6	NW	3	b	31	92	8	-	-	-	0	0	-
12	Renfrew (Abbots I.)	19	1023.0	-2	-	0	z	24	92	6	-	1	-	0	Tr	-
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1021.8	+2	NE'E	3	b	37	85	7	-	-	-	0	0	-
13A	Tiree ...	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1022.0	-16	WSW	2	bc	31	92	8	1	5	6	Tr	4-6	4000
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1021.0	-16	WSW	2	bc	27	97	7	7	1	-	1	4-6	1500
16	Lerwick ...	156	1018.2	-32	WSW	4	c	37	78	7	5	2	-	7-8	9	1500
17	Blacksod Point	18	1021.5	-8	SE	1	b	37	75	8	-	-	-	0	0	-
18	Malin Head ...	84	1022.3	-2	S	1	bc	31	85	8	8	-	-	2-3	2-3	5700
	Aldergrove ...	268	1022.4	-6	E'N	2	b	26	97	7	-	-	-	0	0	-
19	Birr Castle ...	173	1022.2	*	NNE	1	b	27	92	8	-	-	-	0	0	-
20	Valentia Obsy.	30	1020.1	-10	NE'E	3	b	42	85	8	5	-	1	9	9+	2500
	Roches Point	22	1021.1	-6	N'E	3	bc	38	92	8	8	-	-	4-6	4-6	2500

OBSERVATIONS at 7 hr. G.M.T. 29th December

Stations.	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low. (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
London (Kew)	1018.1	+10	NNW	2	z	27	85	5	-	-	-	0	0	-	8	*
Croydon	1017.7	+10	WNW	2	z	27	97	5	5	-	-	4-6	4-6	1500	8	*
S. Farnborough	1018.9	+14	W'N	1	f-	20	97	3	-	-	-	0	0	-	8	*
Boscombe Down	1019.2	+10	N'W	3	z	24	92	5	-	-	-	0	0	-	8	*
Calshot (Sthmtn.)	1018.1	+10	N'W	3	z	29	92	5	-	-	-	0	0	-	8	2
Lympne	1016.2	+2	NNW	3	z	30	97	6	5	-	-	9+	9+	450	8	§1
Manston	1015.2	+2	N	4	z	33	85	6	5	-	-	4-6	4-6	800	4	*
Shoeburyness	1016.0	+4	NW	2	b	28	85	7	-	-	-	0	0	-	8	*
Felixstowe	1015.1	+2	N'W	3	b	31	92	8	8	6	-	Tr	1	2800	4	2
Gorleston	1015.3	+8	NW	3	c	37	85	6	8	-	-	7-8	7-8	2500	8	2
Mildenhall	1016.6	+6	NW	3	z	25	97	6	3	-	3	1	1	4000	8	*
Cranwell	1018.2	+4	NW	3	bc	29	85	7	3	-	-	4-6	4-6	2500	3	*
Birmingham	1020.7	+4	NNW	3	b	24	85	4	-	-	-	0	0	-	8	*
Upper Heyford	1019.4	+6	NW	2	m	22	92	4	-	4	-	0	Tr	-	8	*
Ross-on-Wye	1020.5	+6	E	1	b	25	92	6	-	-	-	0	0	-	4	*
Hartland Point	1019.7	+2	NE	3	bc	37	85	7	4	-	-	2-3	2-3	2500	1	2
Bristol	1020.6	+8	NNE	2	m	26	92	4	-	-	-	0	0	-	3	*
Portland Bill	1018.7	+12	NE	3	b	32	85	6	-	-	-	0	0	-	1	2
Plymouth	1019.9	+6	N'E	3	z	33	85	6	-	-	-	0	0	-	1	1
The Lizard	1019.6	+4	NNE	2	bc	32	92	7	4	-	-	1	2-3	2500	5	2
Scilly (St. Mary's)	1019.5	+2	ENE	3	bc	36	85	6	2	-	-	2-3	2-3	2500	1	3
Guernsey	1018.0	+10	N'E	1	bc	38	65	6	8	-	-	4-6	4-6	1500	1	2
Pembroke	1020.5	+2	E'N	3	b	34	75	8	-	-	-	0	0	-	3	2
Holyhead	1020.9	0	SE'E	2	b	38	92	8	1	-	-	Tr	Tr	5700	3	1
Chester (Sealand)	1020.9	0	WNW	1	z	25	92	5	-	-	-	0	0	-	8	*
Manchester	1021.1	+2	SE'S	1	F-	15	97	1	-	-	-	0	0	-	8	*
Spurn Head	1017.6	+8	NNE	5	cq	38	55	7	5	-	-	9	9	4000	4	4
Catterick	1020.0	+2	NW'N	2	b	28	85	9	-	-	-	0	9	-	4	*
Tynemouth	1021.5	0	WNW	4	bc	31	92	7	2	-	-	4-6	4-6	2500	4	3
St. Abbs Head	1019.7	-4	WNW	2	bc	34	75	8	2	4	4	1	2-3	2500	4	2
Leuchars	1020.4	-14	W	2	b	28	75	8	-	-	1	0	1	-	3	*
Renfrew (Abbots I.)	1022.2	-6	-	0	z	19	97	5	-	-	6	0	4-6	-	8	*
Eskdalemuir	1022.2	-4	-	0	b	18	97	8	-	4	-	0	Tr	-	3	*
Point of Ayre	1021.7	-2	S	1	b	35	85	7	-	-	5	0	Tr	-	3	1
Tiree																
Stornoway	1018.5	-26	SW	3	c	36	86	8	5	7	-	2-3	9+	2500	4	2
Dalwhinnie	1021.4	-20	-	0	bc	15	97	8	4	-	1	Tr	2-3	4000	4	*
Aberdeen	1018.8	-20	W	2	c	27	75	6	5	3	-	1	9	4000	7	2
Wick	1015.6	-36	WSW	3	c	32	97	7	5	7	-	4-6	10	2500	4	1
Lerwick	1008.3	-72	WSW	8	rr	39	92	7	6	2	-	4-6	10	800	4	*
Blacksod Point	1020.2	-6	SE	3	b	37	65	8	-	-	-	0	0	-	0	2
Malin Head	1021.4	0	S	1	bc	29	85	8	1	-	4	2-3	4-6	5700	3	3
Aldergrove	1022.0	-6	SE'E	1	bc	21	97	7	-	-	2	0	2-3	-	3	*
Birr Castle	1022.1	*	SSE	1	b	22	8	-	-	0	0	0	0	-	3	*
Valentia Obsy.	1018.8	-10	-	0	c	38	75	8	5	3	9	1	7-8	4000	1	2
Roches Point	1020.3	-8	E'N	3	bc	34	92	8	5	-	-	4-6	4-6	2500	1	2

PAST 24 HOURS.

Stations.	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 28th Hrs. (36)
London (Kew)	33	26	12	2	Tr	0.0
Croydon	31	22	11	2	Tr	0.0
S. Farnborough	32	15	8	2	0.1	0.0
Boscombe Down	33	23	17	4	-	0.0
Calshot (Sthmtn.)	38	28	26	4	0.1	0.0
Lympne	30	26	25	2	0.5	0.0
Manston		28	24		0.1	0.0
Shoeburyness	32	28	17	14	-	0.0
Felixstowe	33	29	26	-	0.1	0.0
Gorleston	33	29	28	2	1	*
Mildenhall	33	24	18	-	*	0.0
Cranwell	33	27	24	Tr	-	0.0
Birmingham	32	24	19	3	-	0.0
Upper Heyford		22	16		-	*
Ross-on-Wye	34	25	13	3	-	0.0
Hartland Point	45	35	32	0.3	-	0.0
Bristol	39	26	11	34	-	0.0
Portland Bill	44	30	*	5	-	*
Plymouth	46	33	28	0.5	-	0.0
The Lizard	47	32	*	Tr	0.6	0.0
Scilly (St. Mary's)	48	36	*	0.1	Tr	0.2
Guernsey	47	37	31	2	1	0.0
Pembroke	46	31	*	1	-	0.0
Holyhead	40	32	22	2	-	0.0
Chester (Sealand)	33	19	20	3	-	0.0
Manchester	32	8	9	1	-	0.0
Spurn Head	35	33	*	0.5	2	0.0
Catterick	35	28	22	0.1	0.1	0.0
Tynemouth	35	30	26	0.5	1	*
St. Abbs Head	39	33	*	1	3	*
Leuchars	35	27	*	-	-	0.0
Renfrew (Abbots I.)	34	18	*	-	-	0.0
Eskdalemuir	33	18	11	-	-	0.0
Point of Ayre	38	34	*	0.3	-	3.4
Tiree						
Stornoway	36	30	*	4	-	0.2
Dalwhinnie	29	14	12	-	-	0.0
Aberdeen	33	24	17	0.2	-	0.0
Wick	38	24	*	Tr	-	*
Lerwick	40	32	*	Tr	1	3.6
Blacksod Point	47	36	*	0.5	-	*
Malin Head	42	28	*	0.2	Tr	0.0
Aldergrove	37	20	13	Tr	-	4.8
Birr Castle	42	21	19	-	-	0.0
Valentia Obsy.	49	37	30	0.1	-	1.1
Roches Point	47	30	*	0.6	0.3	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet.	Weather Morning. (24 hrs. ended 9h.)	Weather Afternoon.	Weather Night.	Temperature Day Max. °F.	Temperature Night Min. °F.	Temperature Min. on Grass °F.	Rainfall Day. mm.	Rainfall Night. mm.	Sunshine to Sunset. hrs. (Yesterday.)	Humidity 15h. G.M.T. % (Yesterday.)	Humidity 9h. G.M.T. % (To-day.)	Visibility 9h.
Kew	18	cfofsg	ofs	ofsm	33	26	12	2	Tr	0.0	*	*	
Croydon	217	cmsfm		ss fcx	31	22	11	2	Tr	0.0	*	*	
Greenwich (Royal Observatory)	149	cs f	cs f	s bcm	31	26	22	1	Tr	0.0	98	93	4
City (Bunhill Row)	—	*	*	*	*	*	*	*	*		*	*	*
Westminster (St. James' Park)	27	*	*	*	33	28	26	*			96	90	*
Regents Pk. (Botanic Gardens)‡	168	*	*	*	32	25	13	Tr	0.3	*	*	*	*
Camden Square	110	cbc	os	*	32	26	18	2	-	*	*	*	*
Kensington	80	ofs	bc	*	32	25	24	2	Tr		88	90	*
Hampstead Observatory	450	cbx	osf	oxbc	35	24	23	1	-	0.0	*	97	*

Atmospheric Pollution.
Milligrams of Solid Impurity per cubic metre.
24 hrs. ended 7h. G.M.T. 29th

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations.	18h. G.M.T. 28th December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	7h. G.M.T. 29th December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	Past 24 Hours. Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1017.7	-	0	m	34	1015.5	SE	3	c/rs	28	37	*	-	*
Brussels														
Berlin														
Zürich														
Rome	1003.9	NNE	4	c	41						*	*	-	

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 —Code for surface visibility.

Objects not visible at
0 Dense fog 55 yards.
1 Thick fog 220 „
2 Fog 550 „
3 Moderate fog 1,100 „
4 Mist or haze 1½ miles.
5 Poor visibility 2½ „
6 Moderate „ 6¼ „
7 Good „ 12½ „
8 Very good „ 31 „
9 Excellent „ beyond 31m.

COLUMN 30 —Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

TERMS OF SUBSCRIPTION. { Single Copies, 1d. each: by post 1½d. 2/6 per month; 6/6 per quarter; 25/- per year.

METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

Page 1.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Saturday 30th December, 1939.

No 28,527

OBSERVATIONS at 13h. G.M.T. 29th December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1018·8	0	NNW	2	zo	34	65	5	-	-	6	0	3	—
	Croydon	1019·1	0	WNW	1	bf	31	75	3	-	-	-	0	0	—
	S. Farnborough	1019·2	-8	NW'W	1	zo	33	75	5	-	-	1	0	2-3	1500
	Boscombe Down	1020·1	-10	NNW	3	zo	30	85	6	-	-	1	0	2-3	—
	Calshot (Soton.)	1019·4	+2	N	2	zo	35	65	5	-	-	1	0	2-3	—
	Lympne	1018·0	-2	N'W	1	bc	32	75	7	3	-	4	2-3	4-6	2500
	Manston	1017·2	-2	N'W	4	zo	35	85	6	5	3	1	4-6	7-8	800
2	Shoeburyness	1018·0	+2	NW	3	c	34	35	5	1	-	5	Tr	7-8	4000
	Felixstowe	1016·6	+2	NNW	3	b	37	85	7	3	6	8	Tr	1	2500
	Gorleston	1017·0	+8	WNW	2	bc	38	75	7	2	-	1	2-3	4-6	2500
	Mildenhall	1018·2	0	NW	3	zo	33	97	6	8	3	1	4-6	7-8	2500
	Cranwell	[illegible]	-4	NW'N	3	zo	34	75	6	-	-	5	0	7-8	-
3	Birmingham	1020·1	0	NW	2	bf	32	75	3	-	-	-	0	0	—
	Upper Heyford	1020·1	-6	NW	2	m	31	75	4	-	-	5	0	4-6	—
4	Ross-on-Wye	1020·5	-6	SSW	2	zo	34	75	6	-	-	6	0	7-8	—
5	Hartland Point	1020·5	-4	E	3	bc	37	65	8	1	-	5	2-3	2-3	2500
	Bristol	1021·1	-4	N	1	m	32	85	4	-	-	-	0	0	-
	Portland Bill	1019·9	+4	N	2	bc	36	92	7	1	-	-	4-6	4-6	4000
	Plymouth	1020·8	-6	NE	2	zo	39	55	8	-	-	6	0	1	—
	The Lizard	1020·1	0	E	3	bc	42	65	8	4	4	-	2-3	2-3	2500
	Scilly (St. Mary's)	1020·6	0	E'S	2	bc	42	55	7	1	3	3	2-3	4-6	2500
	Guernsey	1019·2	+2	NNE	1	bc	40	65	7	2	7	-	4-6	4-6	2500
6	Pembroke	1020·9	-4	ESE	2	bc	38	75	8	5	7	1	2-3	4-6	2500
7	Holyhead	1020·3	-10	SSE	2	bc	40	75	9	7	-	1	1	2-3	4000
	Chester (Sealand)	1020·9	-10	SE	1	m	23	92	4	-	-	-	0	0	—
8	Manchester	1020·7	-14	—	0	F	18	97	0	-	-	-	10	10	<150
10	Spurn Head	1017·9	-2	NW'N	3	bc	36	85	7	-	4	5	0	4-6	—
	Catterick	1018·9	-14	W'N	2	c	37	65	7	-	-	9	0	7-8	—
	Tynemouth	1019·7	-10	W	3	zo	33	85	5	2	-	1	2-3	4-6	2500
11	St. Abbs Head	1015·9	-32	WNW	4	c	36	65	8	5	9	2	4-6	7-8	2500
	Leuchars	1015·6	-30	W	3	zo	33	75	6	5	7	-	7-8	9+	5700
12	Renfrew (Abbots I.)	1019·0	-30	WNW	2	zo	29	92	5	5	7	6	Tr	9	2500
	Eskdalemuir	1019·6	-16	—	0	c	23	97	8	-	7	6	0	7-8	—
	Point of Ayre	1020·1	-12	WSW	1	c	38	85	8	2	-	7	1	10	2500
13A	Tiree	1017·7	-6	WSW	3	c	41	75	8	5	1	-	4-6	9	2500
13B	Stornoway	1016·0	-24	WSW	6	c/pr	40	65	9	5	7	-	4-6	9+	2500
15	Dalwhinnie	1016·8	-30	W	4	c	34	92	8	8	-	-	10	10	2500
	Aberdeen	1012·0	-38	W	3	c/p	37	65	8	-	7	1	0	9+	—
	Wick	1009·8	-10	WSW	5	rs	36	97	6	5	2	-	7-8	10	1500
16	Lerwick	1004·9	+4	NNW	5	c/ps	34	85	7	8	7	-	4-6	7-8	800
17	Blacksod Point	1018·5	-18	SE	3	c	39	75	8	-	7	7	0	0	—
18	Malin Head	1019·3	-8	S	3	c	27	75	8	-	2	8	0	9	—
	Aldergrove	1020	-24	-	0	m	31	97	4	-	-	-	0	0	—
19	Birr Castle	1020·3	0	SE	1	c	35	75	8	5	-	-	9	9	2500
20	Valentia Obsy. †	1018·3	-14	E	3	c	44	65	8	5	7	-	4-6	9+	4000
	Roches Point	1019·8	-8	S'E	4	c	43	75	8	8	1	-	7-8	9	1500

OBSERVATIONS at 18h. G.M.T. 29th December.

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)
London (Kew)	1019·5	+2	WSW	1	bcf+	30	85	3	-	-	2	0	4-6	—	8	*
Croydon	1019·6	+2	WNW	1	f-	27	85	3	-	-	-	0	0	—	8	*
S. Farnborough	1020·2	+4	WSW	1	m	24	92	4	-	-	4	0	4-6	—	8	*
Boscombe Down	1020·5	0	NNW	1	zo	27	85	5	-	-	8	0	4-6	-	8	*
Calshot (Soton.)	1020·1	+6	NW'N	2	m	30	85	4	-	-	1	0	2-3	-	4	/
Lympne	1019·8	+10	N'W	3	zo	30	85	6	-	-	1	0	1	—	8	§1
Manston	1018·4	+6	WNW	3	zo	33	92	6	5	-	-	10	10	800	1	*
Shoeburyness	1019·2	+6	N'W	1	b	28	92	6	-	-	-	0	0	-	8	
Felixstowe	1017·9	+6	NNW	2	m	31	92	4	2	-	-	Tr	Tr	2500	4	1
Gorleston	1017·5	0	W'N	2	c	35	85	6	5	-	-	9	9	2500	6	2
Mildenhall	1018·3	-2	W	2	m	25	97	4	-	-	1	0	2-3	-	8	*
Cranwell	1019·0	-4	W'N	2	m	27	85	4	-	-	-	0	0	-	3	*
Birmingham	1020·2	0	WNW	2	bf	28	75	3	-	-	-	0	0	-	8	*
Upper Heyford	1020·1	+2	NW'N	1	m	27	75	4	-	-	8	0	2-3	-	8	*
Ross-on-Wye	1020·6	0	SE	1	bcf+	27	92	3	-	-	-	0	2-3	-	4	*
Hartland Point	1020·6	-4	S	2	c	32	65	8	5	-	-	7-8	7-8	2500	0	2
Bristol	1021·4	+6	—	0	zo	29	92	6	-	-	8	0	2-3	—	1	*
Portland Bill	1019·9	-2	NE	2	bc	32	92	6	5	-	-	4-6	4-6	2500	1	2
Plymouth	1021·2	+4	ENE	1	m	33	75	4	5	-	-	2-3	2-3	4000	1	1
The Lizard	1020·5	-4	E'S	1	bc	35	75	8	5	-	-	4-6	4-6	1500	1	2
Scilly (St. Mary's)	1019·9	-4	SE'E	2	c	39	65	7	5	4	3	4-6	7-8	2500	1	2
Guernsey	1020·1	+2	—	0	bc	34	85	6	2	-	-	4-6	4-6	2500	0	1
Pembroke	1020·3	-2	W'S	2	bc	30	65	8	5	4	-	4-6	4-6	2500	1	1
Holyhead	1019·2	-6	SSW	3	c	38	75	7	2	7	-	4-6	9+	2500	1	1
Chester (Sealand)	1019·8	-6	—	0	bf+	23	97	2	-	-	-	0	0	—	8	*
Manchester	1019·9	-10	SSW	1	bF+	15	97	1	-	-	-	0	0	—	8	*
Spurn Head	1017·4	-2	W'N	4	bc	34	85	6	-	-	-	0	4-6	—	4	3
Catterick	1016·5	-14	WNW	1	b	31	85	7	5	-	8	Tr	1	5700	4	
Tynemouth	1016·3	-12	W	4	bc	33	85	6	2	-	-	4-6	4-6	2500	4	2
St. Abbs Head	1012·5	-2	WNW	5	c	36	75	7	8	2	-	7-8	9+	2500	4	4
Leuchars	1011·8	-16	W	5	bc	36	65	7	5	-	-	2-3	2-3	4000	3	
Renfrew (Abbots I.)	1016·3	-18	W	3	zo	35	86	6	5	-	-	1	1	4000	8	*
Eskdalemuir	1016·4	-16	SSE	4	b	24	85	6	5	-	-	1	1	2500	3	*
Point of Ayre	1018·1	-4	NW'W	5	bc	30	75	7	8	-	-	4-6	4-6	2800	0	3
Tiree	1015·1	-12	WSW	4	bc	40	75	8	5	-	-	2-3	2-3	2500	0	3
Stornoway	1014·1	-2	NNW	3	roro	38	97	7	5	-	-	10	10	1500	1	1
Dalwhinnie	1013·7	-8	WSW	5	lso	34	85	7	8	-	-	4-6	4-6	2500	4	*
Aberdeen	1010·6	0	NW	5	pro	37	85	7	6	-	-	4-6	4-6	1500	6	2
Wick	1010·0	+4	NW	5	c	37	75	7	5	7	-	4-6	7-8	1500	1	2
Lerwick	1005·8	+4	NNW	5	c/ps	33	85	7	8	7	-	4-6	10	800	8	*
Blacksod Point	1015·8	-8	S	2	c	42	85	8	8	-	-	10	10	800	0	2
Malin Head	1017·5	-8	S'W	2	bc	33	75	8	5	-	-	4-6	4-6	4000	3	2
Aldergrove	1018·8	-6	SSW	1	bc	27	97	6	-	2	-	0	2-3	—	3	*
Birr Castle	1018·2	+	SSE	2	b	35	85	8	-	-	-	0	0	—	3	*
Valentia Obsy. †	1016·4	-10	SE'E	4	c	43	75	8	5	7	-	4-6	9+	4000	1	2
Roches Point	1018·2	-10	S'W	4	c	44	75	8	6	2	-	4-6	9+	1500	1	3

PAST 24 HOURS.

Stations	Weather 7h.—13h. 29th (37)	Weather 13h.—18h. 29th (38)	Weather 18h. 29th to 1h. 30th (39)	Weather 1h.—7h. 30th (40)
London (Kew)	bmobf	czobcf	bc bffx	bf cmox
Croydon	cmbfmf	bfcf	bfxbmx	bmxbcmx
S. Farnborough	bfzo bc	bczobcm	bcmfx	bfx bcⓊ
Boscombe Down	bmo	bcmo	bmo	bmfcm
Calshot (Soton.)	bmoxbmo	bcmobm	bmcbfx	bfxcf
Lympne	bmobcmo	bczobmo	bmmx	bmmox
Manston	cmobcmo	cmo	bmobfx	bfbmox
Shoeburyness	bcmo x	bcmox	bxmof	bxfmo
Felixstowe	b,cpsbmo	bbm	bm	bmx
Gorleston	cpso bc	bcczo	c bczx	
Mildenhall	bmoxbcps	bcmobm	bmxbfx	bmxbmox
Cranwell	bmoxcbcmo	bcmocbm	bmbxmm	bbcmox
Birmingham	bmf		bfm	bc
Upper Heyford	bcz	bbcz	bzbczbm	bcmom
Ross-on-Wye	bcmbcm	czocbcm	cfcm	cmoc
Hartland Point	bc	bcc	cbc	bcc
Bristol	bxmfm	bmmox	bmox	c
Portland Bill	bbc	bcbczo	bcc	cmox
Plymouth	bzojfbzo	bbcbmz	bzbcmo	zbcmo
The Lizard	bc	bccbc	bc	bc c
Scilly (St. Mary's)	cbcy	bcc	cbcc	cbcc
Guernsey	bc	bc	bbcc	c
Pembroke	bbc	bc	bcq	bcc
Holyhead	bxmobc	bcc	c	c
Chester (Sealand)	bmFxbmx	bcmfx	bcmomx	bccmox
Manchester	bFFoFF	oFbcbfF	bcFFbFb	bF Fcm
Spurn Head	c	c	cbc	cqc
Catterick	bbc	bcb	bbc	bcc
Tynemouth	bc	bc	bcc	cps
St. Abbs Head	cbcb	qc	bcc	ssrsc
Leuchars	bxcxmo	cmobcbx	bxcroro	roromoc
Renfrew (Abbots I.)	bcmoxcf	cbcbmox	bbcmoz	bcczxmoc
Eskdalemuir	bbc x	bcbx	bbcmoz	bccx
Point of Ayre	c	cbc	bcc	c
Tiree	c	cbc	bcc	ciro
Stornoway	cpro	rr	crr	e
Dalwhinnie	c	c		ciris
Aberdeen	czoc	bccpr	ocroc	cbcpso
Wick	rsmoq	rr rsc	psrcq	cposc
Lerwick	crprps	cps	cpsq	cps
Blacksod Point	cbc	c	c	c
Malin Head	c	cbc	bcc Ⓘ	c
Aldergrove	bbcFm	fomxcmbmox	bmocmox	cmox
Birr Castle	bcc	cb	bcc	
Valentia Obsy. †	c	c	cbcc	c
Roches Point	c	c	cproc	icirc

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s_o, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s_o/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r_o, slight rain. rr, continuous rain.
<, less than (for cloud height). ⁄gale.
⊕ Solar halo. Ⓘ lunar halo. ⌂Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4-6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

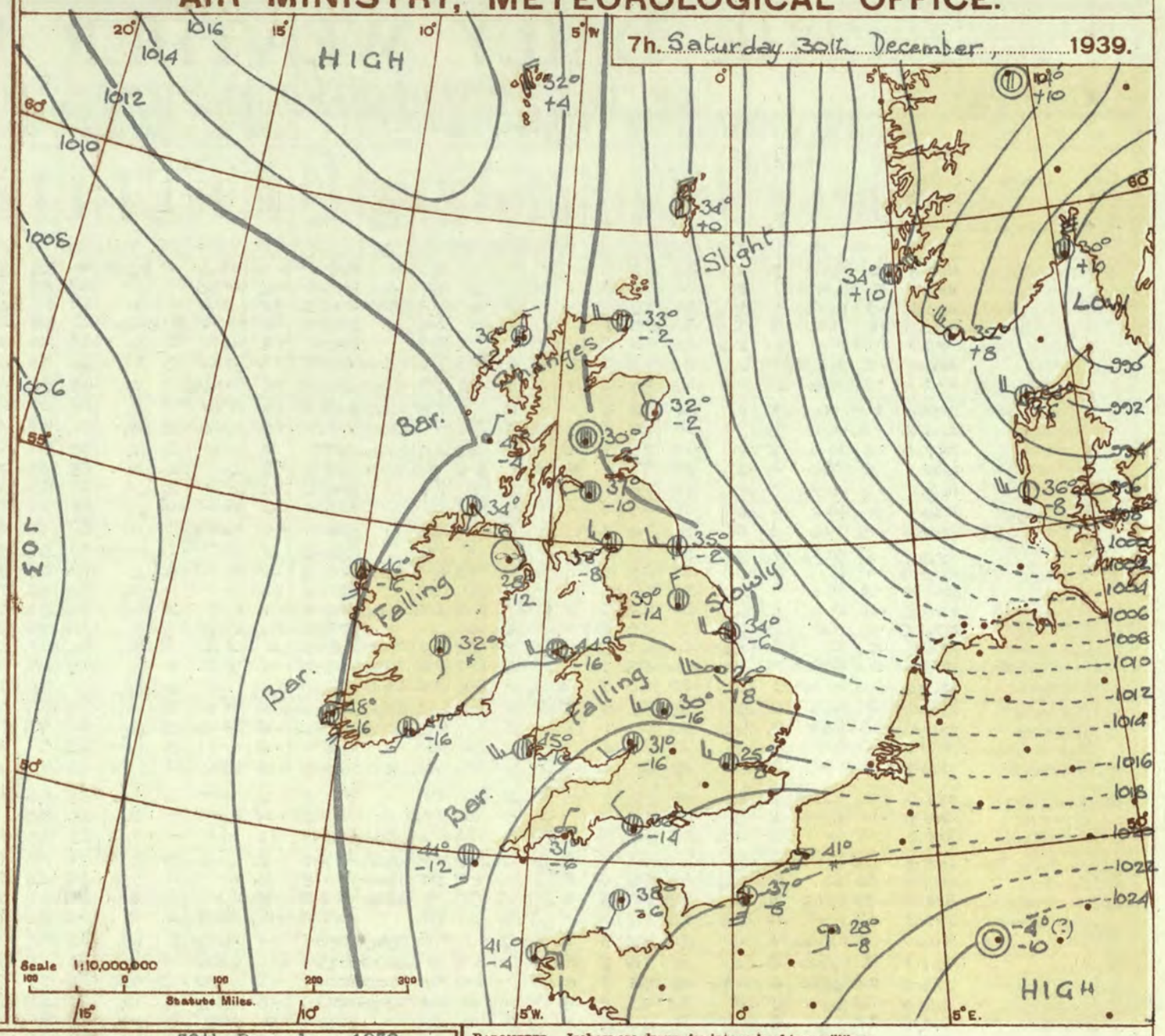
Cloud form abbreviations:— Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

COLUMN 29.—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.



Districts.	FORECASTS FOR THE 24 HOURS COMMENCING 12 NOON, G.M.T. 30th December, 1939
1 S.E. England 2 E. England ... 3 E. Midlands ... 4 W. Midlands ...	Wind west, backing south, moderate; fair; becoming milder.
5 S.W. England 6 South Wales ... 7 North Wales ...	Wind southwest, backing south, moderate; fair today, occasional rain or drizzle tomorrow; temperature rising gradually.
8 N.W. England 9 N. Midlands ... 10 N.E. England	Wind variable, becoming southwest tomorrow, light or moderate; occasional rain or snow today, improving by tomorrow; cold today, becoming milder tomorrow.
11 S.E. Scotland 12 S.W. Scotland & Isle of Man.	Wind northwest, moderate, becoming variable light; frequent snow showers today; cold.
	As 8 - 10
13 A. W. Scotld. B.N.W.Scotland. 14 Mid Scotland	Wind variable light, becoming south, moderate; occasional snow or sleet early, rain later; rather cold today, but temperature rising generally, becoming mild tomorrow.
15 N. E. Scotland	As 11.
16 Orkneys and Shetlands	Wind north, fresh, becoming variable light; frequent snow showers today, improving temporarily tomorrow; cold.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Wind south, moderate, becoming fresh; occasional rain or drizzle, spreading from the west this evening; becoming mild generally.

BAROMETER. Isobars are drawn for intervals of two millibars.
WIND, WEATHER SYMBOLS. For explanation see opposite page.
SEA DISTURBANCE. Rough. High.
BAROMETRIC CHANGE from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

A deep depression over Southern Sweden will move quickly eastsoutheast then east. An extensive anticyclone centred over Switzerland is moving eastsoutheast and an associated ridge of high pressure over England is moving southeast. A large depression to the west of the British Isles is moving slowly eastward.

FURTHER OUTLOOK.

Mildunsettled conditions spreading to all parts of the British Isles.

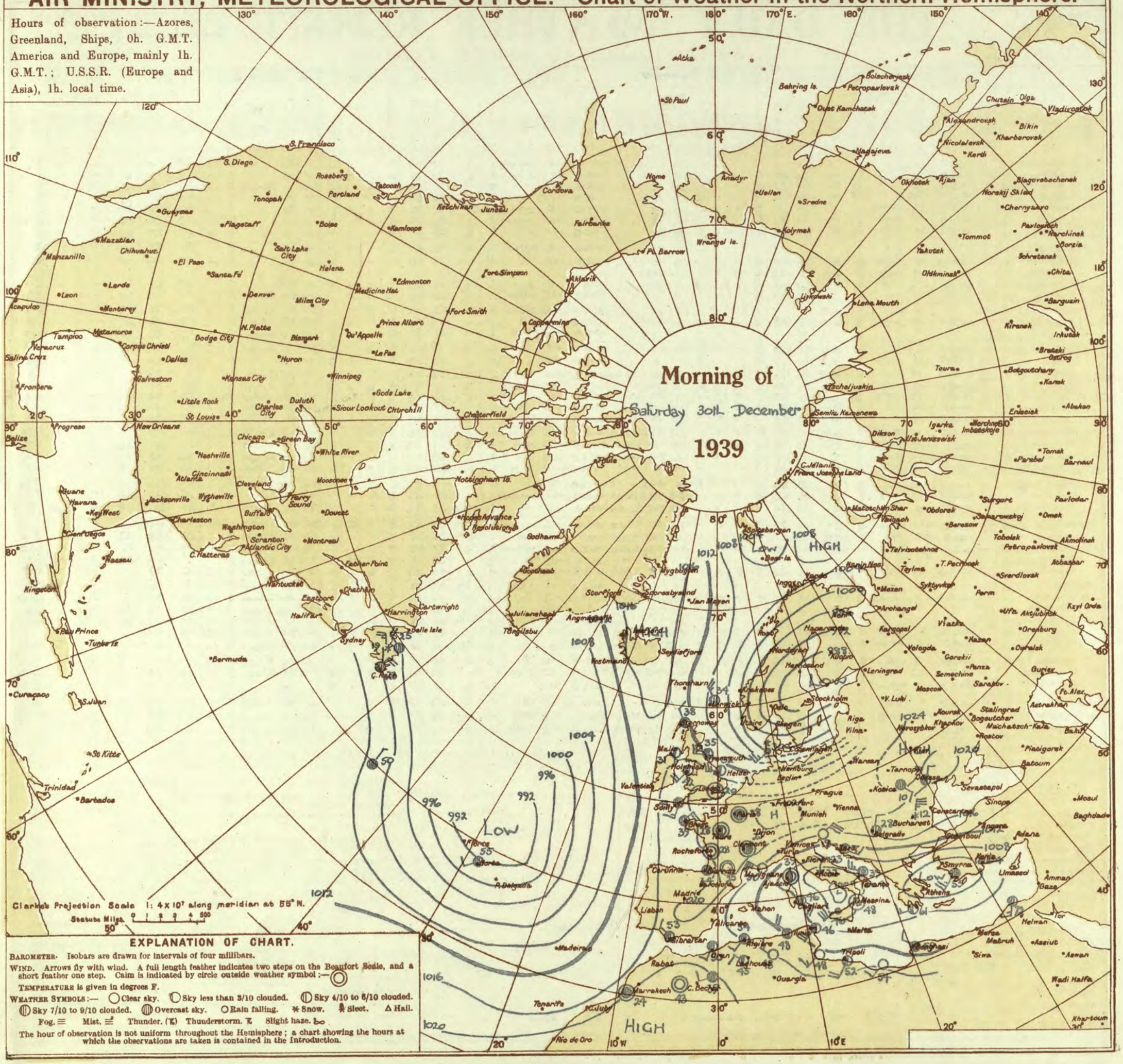
Forecasts issued at 1100 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.

Hours of observation :—Azores, Greenland, Ships, 0h. G.M.T. America and Europe, mainly 1h. G.M.T.; U.S.S.R. (Europe and Asia), 1h. local time.



EXPLANATION OF CHART.

BAROMETER. Isobars are drawn for intervals of four millibars.

WIND. Arrows fly with wind. A full length feather indicates two steps on the Beaufort Scale, and a short feather one step. Calm is indicated by circle outside weather symbol :—

TEMPERATURE is given in degrees F.

WEATHER SYMBOLS :— Clear sky. Sky less than 3/10 clouded. Sky 4/10 to 6/10 clouded. Sky 7/10 to 9/10 clouded. Overcast sky. Rain falling. Snow. Sleet. Hail. Fog. Mist. Thunder. (Thunderstorm. Slight haze.

The hour of observation is not uniform throughout the Hemisphere; a chart showing the hours at which the observations are taken is contained in the Introduction.

Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Saturday 30th December, 1939.

No 25,527.

OBSERVATIONS at 1 hr. G.M.T. 30th December,

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1018.8	-10	-	0	m	20	97	4	-	-	-	0	0	-
	S. Farnborough	226	1019.8	-18	-	0	f-	14	97	3	-	-	-	0	0	-
	Boscombe Down	417	1019.9	-10	-	0	m	20	92	4	-	-	8	0	2-3	-
	Calshot (Sthmtn.)	8	1019.7	-12	NW'W	1	f+	24	97	3	-	-	-	0	0	-
	Lympne ...	346	1018.5	-6	NW'N	3	m	23	92	4	-	-	-	0	0	-
	Manston ...	154	1018.2	-14	W'N	3	f	27	85	3	-	-	-	0	0	-
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1017.0	-14	W'N	3	m	29	97	4	-	-	-	0	0	-
	Gorleston ...	5	1016.0	-16	W'S	3	bc	28	85	5	-	4	-	0	2-3	-
	Mildenhall ...	19	1017.3	-12	SW	3	f	22	92	3	-	-	-	0	0	-
	Cranwell ...	240	1015.9	-26	W	3	z	26	85	5	-	-	-	0	0	-
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1019.4	-14	WSW	2	bc	18	92	6	-	-	6	0	2-3	-
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1018.3	-20	S	3	bc	32	75	8	-	-	6	0	4-6	-
	Bristol ...	209	1019.6	-14	WSW	2	z	30	75	6	-	-	7	0	10	-
	Portland Bill ...	32	1019.0	-14	W	2	c	36	85	7	2	-	-	9	9	4000
	Plymouth ...	82	1003.3	-6	E'N	1	c	30	85	6	-	5	2	0	7-8	-
	The Lizard ...	240	1018.6	-16	E'S	3	c	41	65	7	5	2	-	7-8	9+	1500
	Scilly (St. Mary's)	163	1017.7	-14	S	3	c	43	65	7	8	3	-	4-6	10	1500
	Guernsey ...	175	1019.6	-14	-	0	c	31	85	7	8	3	-	7-8	9+	2500
6	Pembroke ...	142	1018.2	-10	SW'S	4	bcq	40	65	8	7	7	1	2-3	4-6	2500
7	Holyhead ...	26	1016.1	-18	SW'W	4	c	42	75	8	8	-	-	10	10	2500
	Chester (Sealand)	16	1016.9	-14	SW'W	2	z	30	85	6	-	1	.	0	7-8	-
8	Manchester ...	70	1017.2	-14	SE	7	F	*	97	1	-	-	-	0	0	-
10	Spurn Head ...	29	1014.1	-20	W	5	bc	32	85	6	-	-	8	0	4-6	-
	Catterick ...	175	1013.2	-16	W'S	2	c	35	65	8	5	-	-	7-8	7-8	5700
	Tynemouth ...	108	1012.2	-6	W	4	c	35	85	7	2	-	-	7-8	7-8	2500
11	St. Abbs Head	280	1010.8	+4	WNW	6	c	39	75	8	8	6	-	7-8	9	2800
	Leuchars ...	36	1011.9	+2	N	1	r°r°	35	85	6	5	-	-	10	10	1500
12	Renfrew (Abbots I.)	19	1014.1	-12	SSE	1	z°	36	75	6	5	-	-	7-8	7-8	4000
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1015.3	-22	W'N	4	c	38	86	8	6	3	-	4-6	7-8	2500
13A	Tiree ...	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1014.3	-2	NW	2	c	38	85	7	5	7	7	4-6	10	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1010.5	0	NW	5	c/rs	33	97	7	5	7	1	4-6	7-8	1500
16	Lerwick ...	156	1007.2	+4	NNW	5	c	34	85	8	8	7	-	4-6	7-8	1600
17	Blacksod Point	18	1013.9	-8	S	3	c	44	75	8	5	-	-	10	10	1500
18	Malin Head ...	84	1015.0	-12	S	1	c	31	85	8	5	-	-	4-6	7-8	5700
	Aldergrove ...	268	1015.7	-18	SSW	2	z	29	97	6	-	-	7	0	10	-
19	Birr Castle ...	173	1015.9	*	SSE	1	c	35	75	7	-	-	8	0	9	-
20	Valentia Obsy.	30	1014.0	-16	SE'S	3	c	47	75	8	8	-	-	10	10	2800
	Roches Point	22	1015.5	-14	S	4	c/pr	46	85	8	8	-	-	7-8	7-8	1500

OBSERVATIONS at 7 hr. G.M.T. 30th December. — PAST 24 HOURS.

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Temperature Max. Day 7h–18h °F. (31)	Temperature Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 29th Hrs. (36)
London (Kew)	1017.7	-12	SW'W	1	z°	28	88	5	-	3	2	0	9+	-	8	*	35	20	6	—	0.1	3.6
Croydon	1018.2	-8	W'N	3	c	25	75	6	-	3	4	0	9+	-	8	*	32	17	6	—	-	0.0
S. Farnborough	1018.3	-6	-	0	cf+	12	97	3	5	-	9	2-3	9+	4000	8	*	36	10	5	-	-	3.7
Boscombe Down	1018.0	-10	-	0	z	24	92	5	-	-	7	0	9	-	8	*	32	18	11	—	-	3.0
Calshot (Sthmtn.)	1017.9	-8	N'W	1	cf	27	97	3	-	3	7	0	10	-	4	0	36	23	20	—	-	5.4
Lympne	1018.1	-10	WNW	3	z	26	75	6	-	-	5	0	1	-	8	§1	33	20	15	—	-	5.8
Manston	1016.8	-14	W'S	4	z°	24	85	5	-	7	-	0	1	-	3	*	37	22	16	-	-	1.5
Shoeburyness	1016.9	-8	WSW	2	b	26	85	6	-	-	-	0	0	-	8	*	35	25	14	Tr	-	5.1
Felixstowe	1015.1	-16	W	4	m	26	85	4	-	-	-	0	0	-	4	2	38	26	21	1	-	4.6
Gorleston																				1		
Mildenhall	1015.1	-8	SW	2	z	24	97	6	-	4	8	0	4-6	-	8	*	33	21	14	Tr	-	2.4
Cranwell	1013.7	-18	WSW	4	z	28	88	6	5	3	-	2-3	4-6	2500	3	*	35	25	22	-	-	5.0
Birmingham	1015.4	-16	WSW	3	c	30	75	6	5	-	-	9+	9+	1500	8	*	32	25	18	*	-	0.0
Upper Heyford	1017.4	-10	S	1	m	20	92	4	5	3	6	2-3	7-8	5700	8	*	32	16	6	—	-	*
Ross-on-Wye	1016.5	-16	SW	2	c	31	85	6	5	-	7	2-3	10	1500	4	*	35	20	12	—	-	5.4
Hartland Point	1015.9	-8	SW	3	c	38	65	8	5	-	-	7-8	7-8	4000	0	2	37	30	27	—	-	4.8
Bristol	1017.9	-10	-	0	z	29	79	6	-	3	6	0	9	-	3	*	35	24	15	—	-	2.8
Portland Bill	1017.2	-14	NW	2	c	36	92	7	5	-	-	7-8	7-8	2500	1	2	41	32	*	—	-	*
Plymouth	1017.6	-6	NNE	1	z	31	85	5	5	3	8	7-8	9+	4000	3	1	41	28	25	—	-	6.1
The Lizard	1017.1	-4	S	3	c	42	75	8	8	2	-	7-8	10	1500	0	2	43	34	*	—	-	5.4
Scilly (St. Mary's)	1015.5	-12	S'E	3	c	44	75	7	8	3	-	4-6	9+	1500	1	2	42	39	*	-	-	3.3
Guernsey	1018.4	-6	SW'S	1	c	38	75	7	8	1	-	7-8	9+	1500	0	1	42	30	21	-	-	4.3
Pembroke	1015.1	-10	SW'W	5	c	45	75	7	8	-	-	10	10	1500	1	2	40	35	*	—	-	4.4
Holyhead	1013.5	-16	WSW	4	c	44	85	8	2	1	-	7-8	10	1500	1	2	41	38	32	—	-	4.2
Chester (Sealand)	1014.3	-16	SW	2	z	36	65	6	5	-	-	10	10	4000	8	*	26	22	20	Tr	-	0.0
Manchester	1014.6	-18	E'N	1	m	28	97	4	5	-	-	9+	9+	2500	8	*	19	10	7	-	-	-
Spurn Head	1012.5	-6	W	4	c	34	85	6	5	2	-	4-6	10	2500	4	3	39	31	*	—	-	5.4
Catterick	1010.7	-14	NNW	3	c	39	65	8	5	-	-	9+	9+	5700	4	*	35	30	22	—	-	3.7
Tynemouth	1012.4	-2	W	3	c/ps	35	92	6	8	-	-	9+	9+	2500	4	2	34	33	28	—	0.4	*
St. Abbs Head	1011.0	-6	WNW	3	c/ps	34	97	8	3	6	-	7-8	9+	1500	1	2	36	30	*	—	1	*
Leuchars	1011.7	-2	W	1	c	33	92	7	5	-	-	10	10	2500	5	*	37	33	32	-	1	0.6
Renfrew (Abbots I.)	1012.8	-10	WSW	2	c	37	85	7	5	-	-	10	10	1500	8	*	35	34	27	—	-	0.0
Eskdalemuir	1011.4	-8	W'N	3	c	33	75	7	5	7	-	7-8	9+	2500	3	*	27	24	23	—	-	0.2
Point of Ayre	1012.8	-10	NW'N	4	c	40	85	7	5	-	-	9+	9+	2500	0	2	39	37	*	—	-	0.8
Tiree	1012.0	-4	NE'N	1	r°	41	97	7	-	2	-	9	9	1500	1	2	41	36	35	—	*	0.0
Stornoway	1014.3	-2	N	3	c	36	85	7	5	7	-	4-6	9+	2500	1	2	41	34	*	2	Tr	0.0
Dalwhinnie	*	-2	-	0	c	30	97	6	5	-	-	10	10	2500	7	*	35	29	27	—	3	0.5
Aberdeen	1010.8	-2	NW'N	2	b/ps	32	92	7	8	-	1	1	1	4000	7	1	39	31	27	0.3	-	0.1
Wick	1010.6	-2	W	4	c	33	97	7	8	7	1	4-6	7-8	1500	4	2	39	32	*	9	0.2	*
Lerwick	1007.6	0	N	5	c/ps	34	85	7	8	7	-	4-6	7-8	1500	4	*	42	31	*	1	Tr	0.2
Blacksod Point	1011.4	-16	S	3	c	46	75	8	8	-	-	10	10	800	0	2	47	36	*	—	-	*
Malin Head	1013.3	-16	S'W	1	c	34	86	8	8	-	4	4-6	7-8	5700	3	2	36	29	*	—	-	0.0
Aldergrove	1013.6	-12	-	0	z	28	97	6	-	1	7	0	10	-	3	*	31	27	19	-	-	0.0
Birr Castle	1014.0	*	SSE	1	c	32	97	8	5	-	-	9	9	2500	3	*	37	30	27	-	-	0.2
Valentia Obsy.	1011.7	-16	SE'S	4	c	48	86	7	5	-	-	10	10	1500	0	2	44	43	37	—	-	0.0
Roches Point	1013.4	-16	SW'S	3	c	47	92	8	6	2	-	7-8	9+	1500	1	3	44	43	*	Tr	2	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h)	Weather Afternoon	Weather Night	Temperature Day Max. °F.	Temperature Night Min. °F.	Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. (Yesterday)	Humidity 15h. G.M.T. % (Yesterday)	Humidity 9h. G.M.T. % (To-day)	Visibility 9h.
Kew	18	bmbf	czbef	bcbffx	35	20	6	-	0.1	3.6	•	•	
Croydon	217	cmbfmf	bfcf	bfxbmx	32	17	6	-	-	0.0	•	•	
Greenwich (Royal Observatory)	149												
City (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park)	27	•	•	•									•
Regents Pk. (Botanic Gardens)‡	168	•	•	•						3.0			•
Camden Square	110			•							•	•	•
Kensington	80			•									•
Hampstead Observatory	450											•	•

Atmospheric Pollution.

Milligrams of Solid Impurity per cubic metre.

24 hrs. ended 7h. G.M.T. 30th

South Kensington. Max.	Time.	Min.	Time.

Kew Observatory. Max.	Time.	Min.	Time.

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 29th December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	7h. G.M.T. 30th December Barom. mb.	Wind Direc.	Wind Force.	Weather.	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1020.6	-	0	z	28	1020.9	S	2	z	28	30	27	-	-
Brussels														
Berlin														
Zürich														
Rome	1006.3	NE	2	b	36	1002.3	N	[illegible]	s°s°	32	•	•	-	*

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 —Code for surface visibility.

Objects not visible at
0 Dense fog 55 yards.
1 Thick fog 220 „
2 Fog 550 „
3 Moderate fog 1,100 „
4 Mist or haze 1¼ miles.
5 Poor visibility 2½ „
6 Moderate „ 6¼ „
7 Good „ 12½ „
8 Very good „ 31 „
9 Excellent „ beyond 31m.

COLUMN 30 —Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

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METEOROLOGICAL OFFICE, AIR MINISTRY, KINGSWAY, LONDON W.C.2

N. K. JOHNSON, D.Sc., A.R.C.S., Director.

AIR MINISTRY.

THE DAILY WEATHER REPORT

OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION

Sunday, 31st. December, 1939.

No. 28,528

OBSERVATIONS at 13h. G.M.T. 30th. December

District	Stations (For heights see p. 4.)	Barom. at M.S.L. mb. (1)	Change in 3 hours. (2)	Wind. Direc. (3)	Wind. Force 0–12 (4)	Weather. (5)	Temp. °F. (6)	% Humid. (7)	Visibility 0–9 (8)	Cloud. Form. Low (9)	Form. Med. (10)	Form. High (11)	Amount. Low 0–10 (12)	Amount. Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	1014.7	-18	N	1	of	31	85	2	5	–	–	10	10	1500
	Croydon	1014.9	-22	NNW	3	z_o	35	65	6	5	7	–	7-8	10	4000
	S. Farnborough	1014.9	-22	SWW	2	z_o	33	75	6	5	2	–	9	10	5700
	Boscombe Down	1015.4	-18	SSW	1	z_o	31	92	5	–	2	–	10	10	5700
	Calshot (Soton.)	1015.4	-20	–	0	m_o	36	85	4	5	7	–	7-8	10	4000
	Lympne	1015.4	-22	WNW	3	z_o	32	85	6	8	7	–	4-6	9+	4000
	Manston	1015.1	-8	WNW	3	z_o	34	75	6	5	7	7	4-6	9+	4000
2	Shoeburyness	1014.3	-20	W'S	3	m	35	75	4	–	7	–	0	10	–
	Felixstowe	1013.0	-16	W	4	z_o	32	75	5	5	7	–	1	7-8	4000
	Gorleston	1011.9	-12	WSW	3	c	32	97	6	5	3	–	7-8	9+	2500
	Mildenhall	1012.6	-18	SW'W	3	z_o	32	75	5	5	7	–	1	7-8	4000
	Cranwell	1012.2	-10	WSW	4	z_o	34	75	5	5	3	–	4-6	9	4000
3	Birmingham	1013.7	-10	WSW	3	c	33	92	5	5	3	–	2-3	9+	1500
	Upper Heyford	1014.9	-14	SW'W	3	sh	32	85	6	5	2	–	7-8	10	1500
4	Ross-on-Wye	1014.3	-14	SW	2	prs	35	92	5	5	–	–	10	10	800
5	Hartland Point	1014.0	-14	SW	3	c	40	75	8	5	7	–	7-8	9	2500
	Bristol	1015.2	-12	–	0	⊖/d	37	75	6	5	–	–	10	10	4000
	Portland Bill	1015.3	-20	WSW	3	c	44	92	7	5	–	–	10	10	2500
	Plymouth	1015.5	-20	S	3	z_o	45	65	6	5	–	8	1	9+	2500
	The Lizard	1015.1	-10	S	4	c	45	75	8	8	2	–	7-8	10	1500
	Scilly (St. Mary's)	1014.0	-14	S'E	4	c	47	75	8	8	6	–	7-8	9+	2500
	Guernsey	1016.3	-20	SSW	1	bc	43	65	7	1	1	8	Tr	2-3	2500
6	Pembroke	1013.0	-8	WSW	5	c	47	75	8	8	–	–	9+	9+	1500
7	Holyhead	1012.8	-2	WNW	3	c	45	85	7	5	–	–	10	10	4000
	Chester (Sealand)	1012.6	-10	WSW	2	z_o	39	85	6	8	3	–	4-6	7-8	2500
8	Manchester	1012.9	-10	SE'S	1	cf+	32	92	2	–	3	–	0	9+	–
10	Spurn Head	1010.7	-6	W'N	5	m	36	85	4	5	–	–	9+	9+	2500
	Catterick	1012.2	-2	W	2	c	36	75	7	5	–	–	10	10	4000
	Tynemouth	1012.2	-2	WNW	3	c	36	85	6	8	3	–	7-8	9	2500
11	St. Abbs Head	1010.9	-2	WNW	3	c	37	75	8	8	6	–	4-6	7-8	2500
	Leuchars	1011.7	-2	WNW	2	bc	36	65	8	4	7	1	1	4-6	2500
12	Renfrew (Abbots I.)	1013.1	+10	NE	1	rs	36	92	5	5	–	–	10	10	2500
	Eskdalemuir	1012.3	-2	–	0	$s_o s_o$	32	97	7	5	–	–	10	10	2500
	Point of Ayre	1012.5	-2	NNW	2	c	42	85	8	5	3	–	2-3	9	2500
13A	Tiree	1012.4	0	NE	1	c	41	85	8	5	3	–	4-6	7-8	4000
13B	Stornoway	1014.2	0	NW	2	bc	37	75	8	5	6	–	2-3	4-6	4000
15	Dalwhinnie	1013.7	+2	–	0	b	29	92	8	4	6	–	1	1	4000
	Aberdeen	1010.7	0	NW'W	3	ps	30	92	6	8	–	–	4-6	4-6	2500
	Wick	1010.7	-2	NW	3	bc	37	85	8	8	6	–	2-3	2-3	2500
16	Lerwick	1008.4	0	N	5	c/ps	34	92	7	8	7	–	4-6	7-8	1500
17	Blacksod Point	1010.9	-2	S	3	bc	46	85	8	4	5	–	4-6	4-6	1500
18	Malin Head	1012.4	-4	S	2	c	39	92	8	8	7	–	4-6	9	5700
	Aldergrove	1013.2	-6	–	0	c	33	85	7	5	7	–	7-8	10	4000
19	Birr Castle	1013.4	*	SSE	1	c	45	75	8	5	–	–	9	9	2500
20	Valentia Obsy. †	1011.0	-14	SSE	4	c	49	85	7	5	2	–	9	10	2500
	Roches Point	1012.5	-8	S	3	c	48	92	8	5	1	–	7-8	9+	1500

OBSERVATIONS at 18h. G.M.T. 30th. December

District	Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours. (16)	Wind. Direc. (17)	Wind. Force 0–12 (18)	Weather. (19)	Temp. °F. (20)	% Humid. (21)	Visibility 0–9 (22)	Cloud. Form. Low (23)	Form. Med. (24)	Form. High (25)	Amount. Low 0–10 (26)	Amount. Total 0–10 (27)	Height of Base (feet) (28)	State of Ground. 0–9 (29)	Sea. 0–9 (30)
1	London (Kew)	1014.2	-10	WSW	1	m	34	92	4	5	–	–	10	10	1500	8	*
	Croydon	1014.5	-6	WSW	3	c/s	35	92	5	5	–	–	10	10	1500	7	*
	S. Farnborough	1014.4	-8	SWW	1	c/d	34	85	6	5	–	–	10	10	4000	8	*
	Boscombe Down	1014.9	-4	W'S	1	z_o	36	85	5	–	2	–	10	10	4000	8	*
	Calshot (Soton.)	1015.2	+2	NW'W	2	rf	36	92	3	5	–	–	10	10	1500	1	2
	Lympne	1014.7	-6	WNW	3	z_o	33	85	5	5	–	–	10	10	4000	8	§2
	Manston	1013.1	-6	WNW	4	z_o	35	75	6	5	2	–	9+	10	2500	1	*
2	Shoeburyness	1013.7	-8	W'N	3	cf-	35	85	3	–	7	–	0	7-8	–	6	*
	Felixstowe	1012.1	-4	W	4	m	35	85	4	5	–	–	9+	9+	1500	4	2
	Gorleston	1011.1	-2	W'S	3	m	34	92	4	5	–	–	10	10	2500	4	2
	Mildenhall	1012.5	+2	W	3	z_o	34	97	5	5	–	–	10	10	1500	8	*
	Cranwell	1012.3	+4	WN	2	m	33	92	4	5	–	–	9+	9+	1500	3	*
3	Birmingham	1013.1	0	WSW	2	c	34	97	5	5	–	–	9+	9+	2500	7	*
	Upper Heyford	1014.3	-2	–	0	m	32	97	4	5	–	–	1	1	800	8	*
4	Ross-on-Wye	1014.0	-8	SW	2	m	36	92	4	5	–	–	7-8	7-8	800	4	*
5	Hartland Point	1015.6	0	WSW	4	c	44	75	8	5	–	–	9	9	2500	0	2
	Bristol	1014.7	+2	–	0	rs	36	85	6	5	–	–	10	10	2500	1	*
	Portland Bill	1014.8	-4	W	2	c	44	92	7	5	–	–	10	10	2500	1	2
	Plymouth	1014.9	-2	WSW	4	z_o	45	65	6	5	3	–	4-6	4-6	2500	1	2
	The Lizard	1014.8	0	S'E	4	c	45	85	7	8	2	–	9	10	1500	1	3
	Scilly (St. Mary's)	1013.9	+6	S'E	2	c	46	75	8	8	4	–	7-8	9+	2500	1	3
	Guernsey	1015.8	0	SW	1	bc	40	85	7	–	7	8	0	4-6	–	0	1
6	Pembroke	1013.0	0	WNW	5	rs	47	85	7	8	–	–	9+	9+	1500	1	2
7	Holyhead	1012.7	-2	WNW	2	rs	45	85	7	5	–	–	9+	9+	4000	1	1
	Chester (Sealand)	1012.8	0	–	0	bcf+	35	85	3	5	–	–	2-3	2-3	2500	3	*
8	Manchester	1012.8	0	–	0	F+	29	97	0	–	–	–	10	10	4150	8	*
10	Spurn Head	1011.3	+4	NNW	4	bc	36	85	5	–	4	–	0	2-3	–	1	3
	Catterick	1012.2	+2	WNW	1	c	36	75	7	5	–	–	9+	9+	4000	1	*
	Tynemouth	1012.5	+4	W	3	bc	34	85	6	2	–	–	4-6	4-6	2500	4	2
11	St. Abbs Head	1011.4	-2	WNW	3	bc	35	85	8	4	4	1	2-3	4-6	2500	0	2
	Leuchars	1012.4	+6	W	1	b	31	75	8	–	–	–	0	0	–	3	*
12	Renfrew (Abbots I.)	1013.4	+2	–	0	cf	33	97	2	5	2	–	9	10	2500	1	*
	Eskdalemuir	1012.7	0	NW'W	1	c	31	92	6	5	–	–	9	9	1500	4	*
	Point of Ayre	1012.6	0	W	2	c	39	92	8	5	3	–	7-8	9	4000	0	1
13A	Tiree	1012.5	0	E	1	bc	39	85	8	8	–	–	4-6	4-6	2500	0	2
13B	Stornoway	1014.4	+2	NW	2	bc	35	85	8	5	6	–	2-3	4-6	4000	1	1
15	Dalwhinnie	*	+4	–	0	b	17	97	8	4	4	–	Tr	1	4000	7	*
	Aberdeen	1011.5	+6	WNW	3	b	32	85	7	8	–	–	1	1	2500	7	2
	Wick	1011.1	-2	NW	3	sh	33	97	7	5	7	8	4-6	7-8	1500	4	1
16	Lerwick	1008.6	0	NW'N	5	c	35	85	8	8	7	–	4-6	7-8	1500	4	*
17	Blacksod Point	1011.0	+8	–	0	c	43	92	7	–	7	–	0	9+	–	0	2
18	Malin Head	1012.1	+2	SW	1	c	39	85	6	8	–	–	9+	9+	4000	0	2
	Aldergrove	1013.2	-2	–	0	c	34	92	6	5	7	–	7-8	7-8	4000	3	*
19	Birr Castle	*		SSE	1	c	40	92	8	5	–	–	9	9	2500	1	*
20	Valentia Obsy. †	1010.2	-4	ESE	4	bc	48	85	8	2	–	1	2-3	2-3	2500	0	2
	Roches Point	1012.5	+2	S	2	bc	46	97	8	5	–	5	2-3	2-3	2500	1	3

PAST 24 HOURS.

District	Stations	Weather. 7h.—13h. 30th. (37)	13h.—18h. 30th. (38)	18h. 30th. to 1h. 31st. (39)	1h.—7h. 31st. (40)
1	London (Kew)	cm$_o$xof	of$_o$r$_o$s$_o$cm	cm	offx
	Croydon	cbccz$_o$	cz$_o$os$_o$sfm	cm$_o$mbcm$_o$	bm$_o$xcm$_o$
	S. Farnborough	cf⊕z$_o$c	cz$_o$d$_o$s$_o$c	c/d$_o$bccm	cmbxFoF
	Boscombe Down	cm$_o$	cm$_o$i$_o$z$_o$	cm$_o$	bcm$_o$cmo
	Calshot (Soton.)	bccffx	cmffrf	rf$_i$r$_o$d$_o$	cm$_o$b$_m$ox
	Lympne	bz$_o$xbccm	cm$_o$z$_o$	cbcm$_o$x	bcmofx
	Manston	cz$_o$x	cz$_o$x	c$_i$r$_o$bf	bfofF
2	Shoeburyness	bm$_o$cbc	mcmofo	cfcm	cmofx
	Felixstowe	bm$_o$cm$_o$	cm$_o$cm	cm	cmiF
	Gorleston	cz$_o$x	cps$_o$zx	cbccmx	cbcmx
	Mildenhall	m$_o$cm$_o$x	m$_o$is$_o$m$_o$	cf	offof
	Cranwell	bcxcm$_o$	cm$_o$m	cmf	cfFf
3	Birmingham	csh	cbcc	cb,c	cb,cr$_o$
	Upper Heyford	bcmmshsscm	cmbmbcm	cfpFofcm	
4	Ross-on-Wye	comps$_o$m$_o$r$_o$s$_o$cm$_o$	cmfiF	cf	
5	Hartland Point	c	c	cbcc	cbc
	Bristol	cm$_o$xid$_o$	cd$_o$m$_o$cr$_o$	cr$_o$r$_o$m$_o$	cm$_o$b,cw
	Portland Bill	c	c	c	cbc
	Plymouth	cffm$_o$z$_o$⊕	cz$_o$	bcbmbcm$_o$	bmjfcm$_o$x
	The Lizard	c	c	cbc	cbc
	Scilly (St. Mary's)	cbcc	cbcc	cir$_o$bc	bcc
	Guernsey	cbc	bcc	bc	bcb
6	Pembroke	pr$_o$c	cpr$_o$	cpr$_o$	bcc
7	Holyhead	cm$_o$c	pr$_o$r$_o$c	cr$_o$m$_o$c	cpr$_o$m$_o$c
	Chester (Sealand)	cxm$_o$bcm$_o$	bccm$_o$bcm$_o$	bffoff	cffr$_o$r$_o$
8	Manchester	cmff	offFF	cFF	cFF
10	Spurn Head	s$_o$r$_o$c	cmbc	bc	bcc
	Catterick	c	c	cbcc	c
	Tynemouth	cps$_o$c	cbc	bcqwwpz	bc
11	St. Abbs Head	c	bc	b	bc
	Leuchars	cbccbc	bcbx	bx	bx,cx
12	Renfrew (Abbots I.)	cm$_o$mffmffcm$_o$s$_o$id$_o$ffcffro			offbFFx
	Eskdalemuir	cs$_o$s$_o$m$_o$x	cs$_o$s$_o$cx	cm$_o$bcx	bcbx
	Point of Ayre	c	bcc	bcc	d$_o$d$_o$c
13A	Tiree	c	cbc	bccx	c
13B	Stornoway	cbc	bc	bcc	cpr$_o$
15	Dalwhinnie	cbc	b	**	bcc
	Aberdeen	bcps$_o$	bcb	b,cbc	bcc
	Wick	cbc	bcpsb	cpsc	cp$_o$sc
16	Lerwick	cps	c	cps	cps$_o$
17	Blacksod Point	cbc	bc	bcc	bcb
18	Malin Head	c	cpscid$_o$c	*	c
	Aldergrove	cm$_o$xcx	d$_o$d$_o$d$_o$m$_o$xid$_o$d$_o$d$_o$m$_o$		moid$_o$ir$_o$
19	Birr Castle	c	c	b	bx
20	Valentia Obsy. †	cm$_o$c	cbc	bcc	c
	Roches Point	c	bcw	bwbcw	bccw

EXPLANATION OF FIGURES, LETTERS AND SYMBOLS.

COLUMNS 5, 19, 37, 38, 39, 40—BEAUFORT NOTATION AND SYMBOLS FOR WEATHER.

b, blue sky (not more than a quarter covered with cloud).
bc, sky partly cloudy (one half covered). c, generally cloudy.
d, drizzle. e, wet air. g, gloom.
f, fog, visibility 220–1100 yds.
F, thick fog ,, less than 220 yds.
fs, low fog over sea (coast station).
fg, low fog over land (inland station).
m. mist, visibility 1100–2200 yds.
h, hail. i, intermittent.
jf, fog at a distance, but not at station.
jp, precipitation within sight of station.
ks, storm of drifting snow.
k/s$_o$, slight storm of drifting snow (generally low).
k/S, heavy storm of drifting snow (generally low).
s$_o$/k, slight storm of drifting snow (generally high).
S/k, heavy storm of drifting snow (generally high).
KQ, line squall. l, lightning.
o, overcast sky. p, passing showers.
q, squalls. r, rain. s, snow.
rs, sleet. t, thunder.
u, ugly, threatening sky.
v, unusual visibility. w, dew.
x, hoar frost. y, dry air.
z, dust haze: the turbid atmosphere of dry weather.
h(r), "hail" or "rain and hail."
Capital letters indicate intense; suffix o indicates slight; repetition of letters indicates continuity: thus R, heavy rain. r$_o$, slight rain. rr, continuous rain.
<, less than (for cloud height). ⸗gale.
⊕ Solar halo. ☾ lunar halo. ⌓Aurora.

With present weather is combined, whenever possible, the general character of the weather.

A "solidus" divides actual existing weather from preceding conditions thus:—bc/r, fair weather after rain; —, has decreased; +, has increased.

COLUMNS 9, 23.—FORM OF LOW CLOUD.

0 No low clouds.
1 Fair weather Cu.
2 Large Cu without anvil.
3 Cb.
4 Sc formed by the spreading out of Cu.
5 Layer of St or Sc.
6 Ragged low clouds of bad weather (or fractonimbus).
7 Fair weather Cu and Sc.
8 Large-Cu (or Cb) and Sc.
9 Large-Cu (or Cb) and ragged low clouds of bad weather.

COLUMNS 10, 24.—FORM OF MEDIUM CLOUD.

0 No medium clouds.
1 Typical As (thin).
2 Typical As (thick) (sun or moon invisible), or Nimbostratus (Ns).
3 Single layer of Ac or high Sc.
4 Ac in isolated patches. Individually decreasing (often lenticular).
5 Ac in bands (increasing).
6 Ac formed from the spreading out of Cu.
7 Ac associated with As or As with parts resembling Ac.
8 Ac Castellatus (or Ac in ragged fragments).
9 Ac in several layers generally associated with fibrous veils and a chaotic appearance of the sky.

COLUMNS 11, 25.—FORM OF CIRRUS CLOUD.

0 No cirriform cloud.
1 Fine Ci not increasing: sparse.
2 Fine Ci not increasing: abundant but not a continuous layer.
3 Anvil Ci (usually dense).
4 Fine Ci increasing: usually in tufts.
5 Ci or Cs increasing: still below 45° altitude: often in polar bands.
6 Ci or Cs increasing and reaching above 45° altitude: often in polar bands.
7 Veil of Cs covering whole sky.
8 Cs not increasing and not covering whole sky.
9 Cc predominating, and a little cirrus.
(Cc may occur with any of the types 1 to 8).

COLUMNS 12, 13, 26, 27.

Columns 12, 26. The figures in these columns indicate the amount of cloud at the height given in Column 14.
Columns 13, 27. The figures in these columns indicate the total amount of all forms of cloud.
An entry "4–6" means that the cloud amount may be 4, 5 or 6; similarly for other grouped entries.
"tr" signifies a small amount of cloud (trace) covering less than 1/20 of the sky.
"9 +" signifies an overcast sky with a few small openings.

§ Sea disturbance reported from Dungeness.

Cloud form abbreviations:—
Cirrus,–Ci: Cirrocumulus,–Cc: Cirrostratus,–Cs: Altocumulus,–Ac: Altostratus,–As: Stratocumulus,–Sc: Stratus,–St: Nimbostratus,–Ns: Cumulus,–Cu: Cumulonimbus,–Cb.

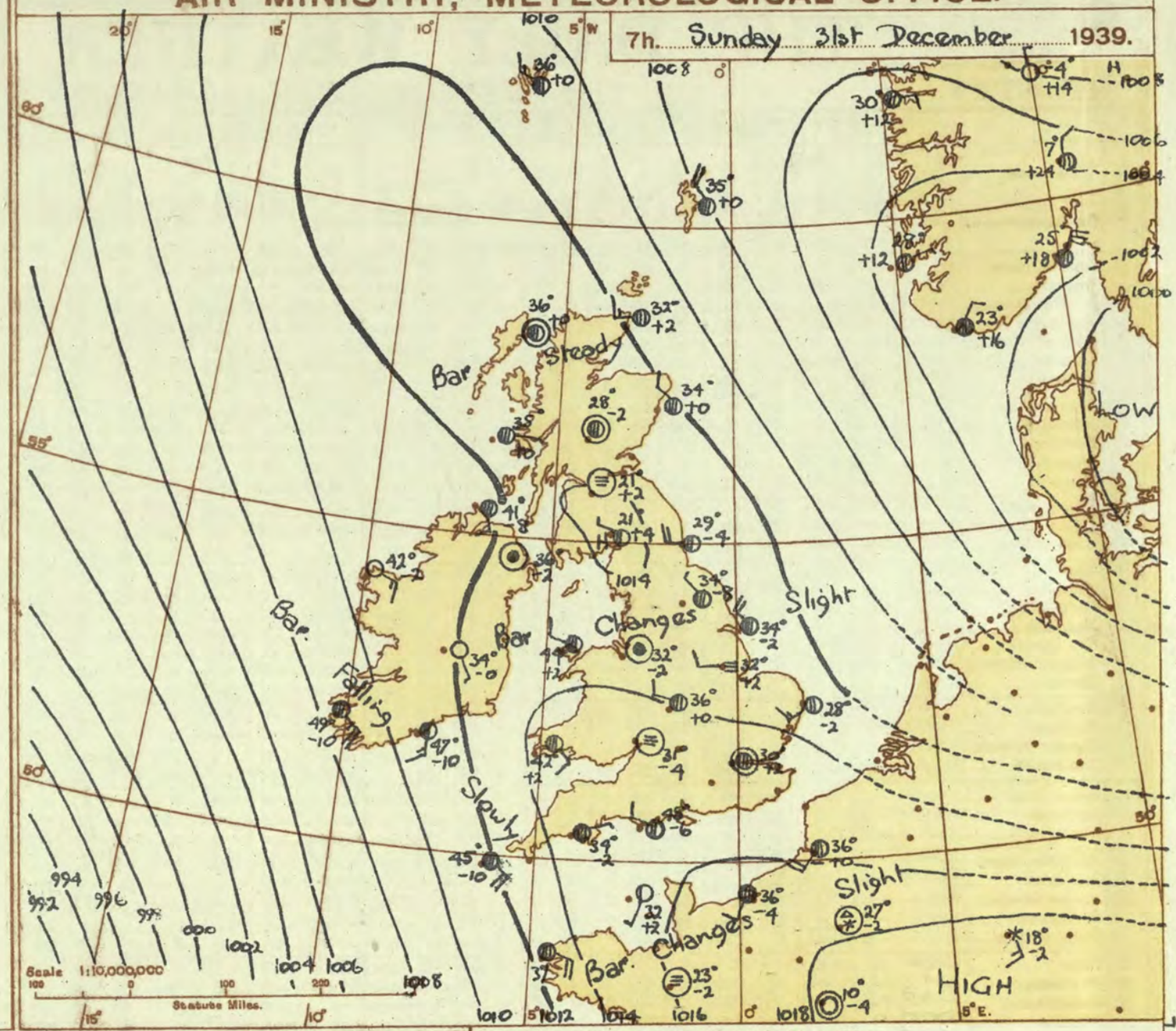
COLUMN 29—STATE OF GROUND.

0 .. Ground dry.
1 .. ,, wet.
2 .. ,, flooded.
3 .. ,, frozen hard and dry.
4 .. ,, partly covered with snow or hail.
5 .. ,, covered with ice or glazed frost.
6 .. ,, covered with thawing snow.
7 .. Ground covered with snow, less than 6 ins., deep but ground not frozen.
8 .. ,, covered with snow, less than 6 ins., but ground frozen.
9 .. ,, covered with snow greater than 6 ins. deep.
– .. Fresh snow has fallen in the mountains.

NOTE.—*The accuracy of individual entries in this Report cannot be guaranteed. Corrections and additions can be obtained, if necessary, on application to the Meteorological Office, London, W.C.2.*

AIR MINISTRY, METEOROLOGICAL OFFICE.

7h. Sunday 31st December 1939.



Districts.	Forecasts for the 24 hours commencing 12 noon, G.M.T. 31st December, 1939.
1 S.E. England 2 E. England ... 3 E. Midlands ...	Wind variable light; fog persisting locally; occasional light sleet or snow locally; cold with ground frost at night.
4 W. Midlands ...	As 6 - 9
5 S.W. England	Wind south, moderate; mainly fair; day temperature slightly below average.
6 South Wales ... 7 North Wales ... 8 N.W. England 9 N. Midlands ...	Wind variable light, occasional light rain, with snow on hills; fog persisting locally; cold with ground frost locally at night.
10 N.E. England 11 S.E. Scotland	Wind northwest, moderate, becoming variable light; fair; cold with ground frost locally at night.
12 S.W. Scotland & Isle of Man.	As 6 - 9
13 A. W. Scotld. / B.N.W. Scotland. 14 Mid Scotland	Wind variable, light; mainly fair; cold with ground frost at night.
15 N. E. Scotland	Wind northwest, moderate, becoming variable light; snow showers near coast today; fair tomorrow.
16 Orkneys and Shetlands	Wind northwest, moderate; snow showers; cold.
17 N. W. Ireland 18 N. E. Ireland 19 S. E. Ireland 20 S. W. Ireland	Wind between south and southeast, light in the northeast, moderate to fresh in the southwest; fair apart from occasional light rain locally; day temperature approaching average; local ground frost at night.

Barometer. Isobars are drawn for intervals of two millibars.
Wind, Weather Symbols. For explanation see opposite page.
Sea Disturbance. Rough. High.
Barometric Change from 4h. to 7h. in tenths of millibars is entered beneath the temperature.

GENERAL INFERENCE.

A depression centred over Southern Sweden is almost stationary and filling up. A ridge of high pressure extending from France across the British Isles to Iceland is weakening very slowly in the extreme west in advance of an extensive depression over the Atlantic. It will be generally cold in Great Britain, with fog persisting locally, and local ground frost at night.

FURTHER OUTLOOK.

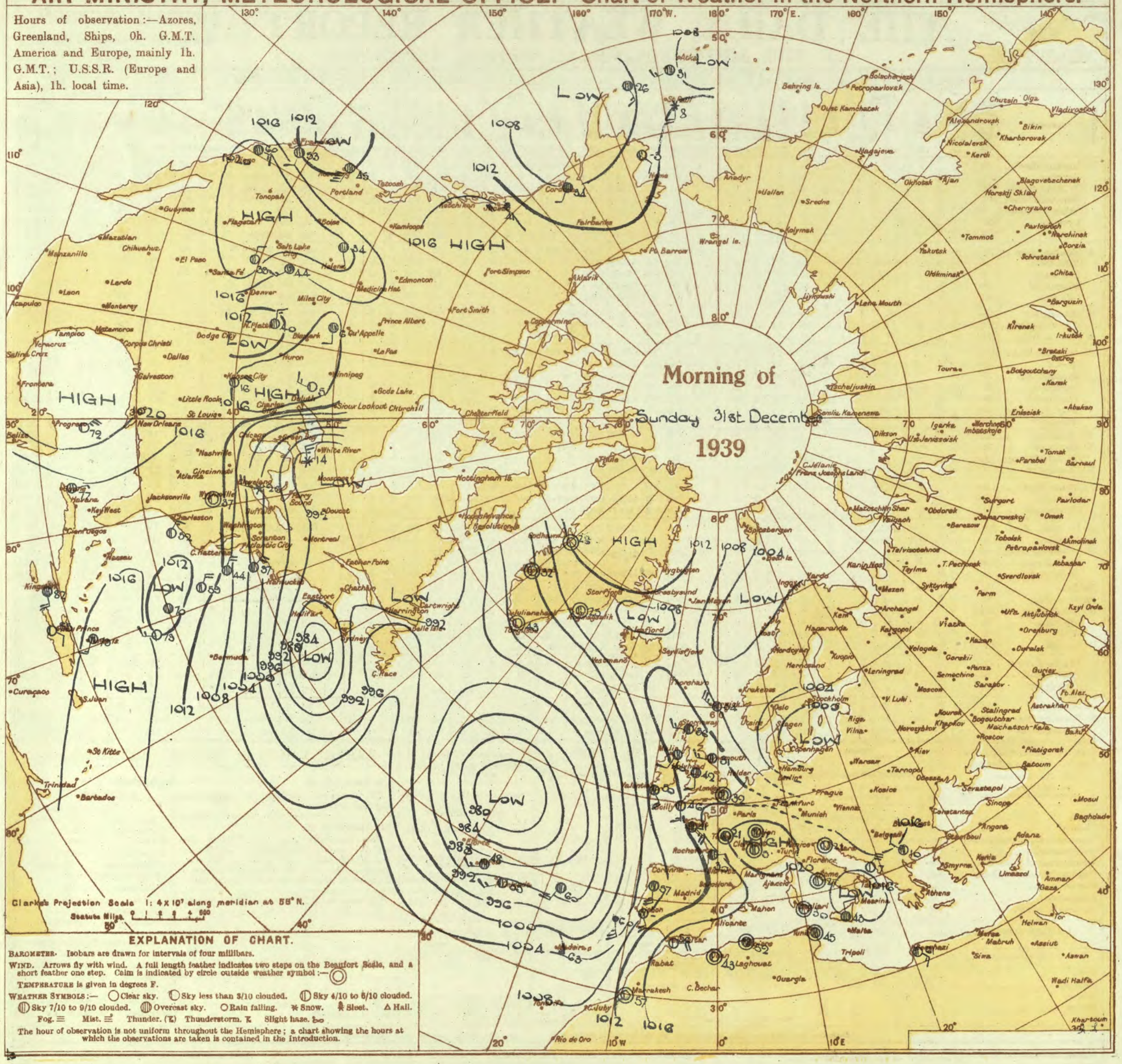
Little change.

Forecasts issued at 1100 G.M.T.

N. K. JOHNSON. D.Sc., A.R.C.S.
Director.

H.M.S.O. Press, Cornwall House, S.E.1.

AIR MINISTRY, METEOROLOGICAL OFFICE. Chart of Weather in the Northern Hemisphere.



Page 4.

AIR MINISTRY.

THE DAILY WEATHER REPORT
OF THE METEOROLOGICAL OFFICE, LONDON.

BRITISH SECTION
Sunday, 31st. December 1939.
No. 28,528.

OBSERVATIONS at 1 hr. G.M.T. 31st. December

District	Stations	Height above M.S.L. in feet	Barom. at M.S.L. mb. (1)	Change in 3 hours (2)	Wind Direc. (3)	Wind Force 0–12 (4)	Weather (5)	Temp. °F. (6)	Humid. % (7)	Visibility 0–9 (8)	Cloud Form Low (9)	Cloud Form Med. (10)	Cloud Form High (11)	Cloud Amount Low 0–10 (12)	Cloud Amount Total 0–10 (13)	Height of Base (feet) (14)
1	London (Kew)	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Croydon ...	217	1014.4	-2	-	0	zo	32	92	6	-	3	-	0	2-3	-
	S. Farnborough	226	1014.5	-2	NW	"	m	29	92	4	5	-	-	9	9	2500
	Boscombe Down	417	1014.8	0	W'N	1	zo	36	92	5	5	-	-	10	10	1500
	Calshot (Sthmtn.)	8	1014.6	-2	NW	1	c/d	37	85	5	5	-	-	10	10	1500
	Lympne ...	346	1014.7	-2	NW'N	2	zo	31	97	6	-	3	-	0	4-6	-
	Manston ...	154	1013.5	-6	NW	2	f-	33	92	3	5	3	-	1	2-3	2500
2	Shoeburyness ...	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Felixstowe ...	15	1012.8	-2	WNW	2	m	35	97	4	5	-	-	9+	9+	4000
	Gorleston ...	5	1012.0	0	W'N	3	c	30	85	4	5	-	-	7-8	7-8	1500
	Mildenhall ...	19	1013.3	+2	SW	2	cf+	32	97	3	5	-	-	9+	9+	1500
	Cranwell ...	240	1012.9	-4	WSW	2	cf-	32	97	3	5	-	-	9+	9+	2500
3	Birmingham ...	535	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Upper Heyford	408	1014.7	0	NW	1	m	31	92	4	-	3	-	0	4-6	-
4	Ross-on-Wye	223	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5	Hartland Point	299	1013.5	-4	SW	3	c	43	85	8	5	1	-	9	9+	2500
	Bristol ...	209	1014.5	-4	W	2	zo	39	97	6	5	7	-	4-6	7-8	2500
	Portland Bill ...	32	1014.1	-2	WNW	2	c	45	92	7	2	-	-	9	9	4000
	Plymouth ...	82	1015.2	+2	-	0	m	35	92	4	5	-	-	Tr	Tr	5700
	The Lizard ...	240	1014.3	-6	SSE	3	bc	44	85	8	8	-	-	2-3	2-3	2500
	Scilly (St. Mary's)	163	1013.4	-4	SSE	3	bc	46	75	7	8	3	-	4-6	4-6	1500
	Guernsey ...	175	1015.9	0	-	0	bc	34	92	7	1	3	-	1	2-3	2500
6	Pembroke ...	142	1013.0	-2	W	2	pr	47	85	8	8	2	-	7-8	9	1500
7	Holyhead ...	26	1013.1	-2	S	2	c	42	92	6	5	2	-	4-6	10	2500
	Chester (Sealand)	16	1013.4	-6	-	0	cf-	30	97	2	5	-	-	9+	9+	4000
8	Manchester ...	70	1013.9	+2	SE	1	F	30	97	0	-	-	-	10	10	<150
10	Spurn Head ...	29	1012.1	0	NW'W	4	bc	34	85	6	-	2	-	0	2-3	-
	Catterick ...	175	1013.0	+2	-	0	c	29	85	7	5	-	-	7-8	7-8	4000
	Tynemouth ...	108	1013.1	0	W	3	bc	31	85	7	2	-	-	2-3	2-3	2500
11	St. Abbs Head	280	1012.2	-4	WNW	3	b	33	75	7	4	-	-	1	1	2500
	Leuchars ...	36	1012.8	-2	W	2	b	29	75	8	-	4	-	0	Tr	-
12	Renfrew (Abbots I.)	19	1013.9	+2	-	0	f-	30	97	2	-	-	-	10	10	<150
	Eskdalemuir ...	794	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Point of Ayre ...	30	1013.0	0	-	0	c	38	97	7	5	1	-	7-8	10	1500
13A	Tiree ...	22	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13B	Stornoway ...	80	1014.2	0	W	3	c	36	85	7	5	2	-	4-6	10	2500
15	Dalwhinnie ...	1176	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Aberdeen ...	79	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Wick ...	81	1011.0	+2	W	2	c	32	97	7	8	7	1	4-6	7-8	1500
16	Lerwick ...	156	1008.3	-2	NNW	5	c	34	85	8	8	7	-	4-6	7-8	1500
17	Blacksod Point	18	1010.9	0	SE	2	c	46	85	8	-	3	-	0	7-8	-
18	Malin Head ...	84	1012.3	-2	S'W	1	c	40	85	8	8	-	-	7-8	7-8	4000
	Aldergrove ...	268	1013.4	0	-	0	zo	35	97	6	5	-	-	10	10	2500
19	Birr Castle ...	173	1012.9	0	SSE	1	b	35	97	8	-	-	-	0	0	-
20	Valentia Obsy.	30	1009.9	-6	SE	4	c	50	75	8	8	-	-	7-8	7-8	2500
	Roches Point	22	1012.4	-2	S'E	3	bc	46	97	8	5	-	5	2-3	2-3	2500

OBSERVATIONS at 7 hr. G.M.T. 31st. December — PAST 24 HOURS.

Stations	Barom. at M.S.L. mb. (15)	Change in 3 hours (16)	Wind Direc. (17)	Wind Force 0–12 (18)	Weather (19)	Temp. °F. (20)	Humid. % (21)	Visibility 0–9 (22)	Cloud Form Low (23)	Cloud Form Med. (24)	Cloud Form High (25)	Cloud Amount Low 0–10 (26)	Cloud Amount Total 0–10 (27)	Height of Base (feet) (28)	State of Ground 0–9 (29)	Sea 0–9 (30)	Max. Day 7h–18h °F. (31)	Min. Night 18h–7h °F (32)	Min. on Grass °F. (33)	Rainfall Day 7h–18h mm. (34)	Rainfall Night 18h–7h mm. (35)	Sunshine 30th Hrs. (36)
London (Kew)	1014.5	+2	SW	1	f	30	97	2	5	-	-	10	10	1500	8	*	34	25	12	0.5	Tr	0.0
Croydon	1014.7	+2	-	0	zo	30	97	5	5	3	-	7-8	9+	1500	8	*	36	28	22	0.3	-	0.0
S. Farnborough	1014.7	+2	SW'W	1	f	26	97	2	-	-	-	10	10	<150	8	*	35	22	18	0.1	-	0.0
Boscombe Down	1014.7	-2	NW'W	1	zo	35	97	5	5	-	-	10	10	2500	8	*	37	33	25	0.1	-	0.0
Calshot (Sthmtn.)	1014.7	+2	-	0	m	32	97	4	-	3	-	0	2-3	-	1	0	37	31	26	0.4	0.3	0.0
Lympne	1015.0	+2	NW	2	F	28	97	1	-	-	-	0	0	-	8	§ 1	33	26	23	0.2	-	0.0
Manston	1013.7	+2	NW'W	2	F	32	97	1	-	-	-	10	10	<150	0	*	35	30	27	—	-	1.3
Shoeburyness	1014.0	+2	NW	2	cf-	30	97	3	5	-	-	10	10	800	8	*	35	29	27	—	-	0.0
Felixstowe	1013.1	0	NW	2	cf	30	97	2	5	-	-	9+	9+	4000	4	1	35	30	29	—	-	1.1
Gorleston	1011.9	-2	WSW	3	m	28	92	4	5	-	-	2-3	2-3	2500	5	2	34	28	23	0.2	-	*
Mildenhall	1013.7	0	W'S	2	f-	31	97	2	-	-	-	10	10	<150	8	*	34	31	*	Tr	Tr	0.0
Cranwell	1013.2	+2	W	2	f-	32	92	3	5	-	-	9+	9+	2500	3	*	34	29	28	—	-	0.1
Birmingham	1013.4	0	WNW	2	c/r	36	97	6	5	-	-	9+	9+	1500	8	*	34	30	23	Tr	0.4	0.0
Upper Heyford	1014.6	-2	W	1	m/f	29	92	4	5	-	-	10	10	4000	8	*	33	27	15	1	Tr	*
Ross-on-Wye	1014.3	-4	-	0	cf	31	97	3	5	-	-	9+	9+	2500	4	*	36	30	24	3	-	0.0
Hartland Point	1014.0	+4	SSE	3	bc	37	92	8	-	-	5	0	2-3	-	0	2	44	37	34	—	-	0.1
Bristol	1014.4	-2	-	0	zo	36	97	6	5	-	-	4-6	4-6	2500	1	*	38	36	26	Tr	Tr	0.0
Portland Bill	1014.7	-6	WNW	2	bc	45	92	7	5	-	-	2-3	2-3	4000	1	2	44	40	*	-	-	*
Plymouth	1014.7	-2	ENE	1	zo	34	97	5	5	-	-	9	9	4000	3	0	45	32	29	-	-	0.5
The Lizard	1013.8	-2	SSE	4	bc	42	75	8	8	4	-	2-3	4-6	2500	1	3	46	41	*	-	-	0.0
Scilly (St. Mary's)	1012.4	-10	SE	4	c	45	65	7	8	3	-	4-6	9+	1500	1	3	47	44	*	-	0.1	0.1
Guernsey	1015.4	+2	S'W	1	bc	32	85	7	-	4	-	0	2-3	-	0	1	44	30	.21	—	-	4.4
Pembroke	1014.7	+2	SE	2	c	42	97	7	8	-	-	7-8	7-8	2500	1	1	48	40	*	0.1	2	0.0
Holyhead	1012.7	+2	W'N	2	c	44	97	7	5	3	-	7-8	7-8	5700	1	1	45	39	33	Tr	0.3	0.3
Chester (Sealand)	1013.4	-2	-	0	roro	32	92	3	5	-	-	10	10	2500	7	*	39	27	27	Tr	0.1	0.0
Manchester	1013.5	-6	-	0	F	31	97	0	-	-	-	10	10	<150	8	*	39	25	24	—	-	0.0
Spurn Head	1012.3	-2	NW	4	bc	34	85	5	5	-	-	4-6	4-6	5700	3	3	37	33	*	Tr	-	0.0
Catterick	1012.5	-8	NW'N	1	c	34	75	8	5	-	-	9+	9+	2500	3	*	39	28	21	—	-	0.0
Tynemouth	1013.1	-4	W	4	bc	29	85	6	2	-	-	4-6	4-6	2500	4	2	36	27	23	0.2	-	*
St. Abbs Head	1011.7	-4	WNW	3	bc	33	85	8	4	-	-	2-3	2-3	2500	0	2	37	32	*	Tr	-	*
Leuchars	1013.0	0	WSW	2	c	28	75	8	5	-	-	9	9	4000	3	*	36	26	20	—	-	3.3
Renfrew (Abbots I.)	1014.3	+2	-	0	bF	21	97	1	-	1	-	0	1	-	3	*	37	20	25	0.2	-	0.0
Eskdalemuir	1014.2	+4	WNW	1	b	21	85	7	5	-	-	Tr	Tr	2500	4	*	34	19	14	0.3	-	0.0
Point of Ayre	1012.9	0	E'S	2	c	40	92	7	8	5	-	9+	9+	2500	1	0	43	35	*	—	0.2	1.3
Tiree	1012.8	0	E	1	c	35	92	8	5	-	-	9	9	2500	0	1	42	34	27	—	-	0.1
Stornoway	1014.0	0	-	0	c/pr	36	85	8	5	7	-	2-3	9+	2500	1	0	39	32	*	—	Tr	3.0
Dalwhinnie	1013.9	-2	-	0	c	28	92	8	5	-	-	10	10	4000	8	*	31	15	14	—	-	4.3
Aberdeen	1011.5	0	NW	2	c	34	85	8	5	-	-	9+	9+	2500	7	2	34	31	27	0.1	-	2.4
Wick	1010.9	+2	WSW	3	c/ps	32	97	7	5	7	-	7-8	9+	1500	4	1	37	31	*	Tr	0.4	*
Lerwick	1007.8	0	NNW	4	c	35	92	8	8	7	-	4-6	7-8	800	4	*	35	33	*	Tr	0.2	1.0
Blacksod Point	1010.2	-2	ESE	3	b	42	97	7	-	-	-	0	0	-	0	2	48	40	*	Tr	-	*
Malin Head	1011.6	-8	S	2	c	41	85	8	8	-	-	4-6	7-8	4000	0	2	40	36	*	0.2	0.1	0.0
Aldergrove	1012.8	-2	-	0	r'o	36	97	6	5	-	-	10	10	4000	1	*	34	32	30	0.2	Tr	0.0
Birr Castle	1012.8	*	SSE	1	b	34	92	8	-	-	-	0	0	-	3	*	46	28	26	—	-	1.1
Valentia Obsy.	1008.9	-10	SE'E	5	c	49	75	7	8	3	-	9	9+	1500	0	4	51	48	41	—	-	0.5
Roches Point	1010.9	-10	S'W	3	c	47	92	8	5	-	-	9+	9+	1500	1	3	49	46	*	Tr	Tr	*

LONDON OBSERVATIONS

Day 7h—18h, Kew & Croydon.
9h—18h, Kensington.
9h—21h, other stations except for rainfall which is 9h—18h.

Station	Height above M.S.L. in feet	Weather Morning (24 hrs. ended 9h)	Weather Afternoon	Weather Night	Temp. Day Max. °F.	Temp. Night Min. °F.	Temp. Min. on Grass °F.	Rainfall Day mm.	Rainfall Night mm.	Sunshine to Sunset hrs. Yesterday	Humidity 15h. G.M.T. % Yesterday	Humidity 9h. G.M.T. % To-day	Visibility 9h. To-day
Kew	18	cm₀xof	ofs₀cs₀cm	cmffx	34	25	12	0.5	Tr	0.0	•	•	1
Croydon	217	cbocz₀	cz₀s₀sfm	cm₀ycm₀	36	28	22	0.3	-	0.0	•	•	
Greenwich (Royal Observatory)	149	of	ofs₀	cbof	35	26	21	3	-		82	90	1
City (Bunhill Row)	—	•	•	•	•	•	•	•	•		•	•	•
Westminster (St. James' Park)	27	•	•	•	35	25	24	-			92	89	•
Regents Pk. (Botanic Gardens)‡	163	•	•	•									•
Camden Square	110	o	o	•	35	25	21	0.3	-	•	•	96	•
Kensington	80	bcof	of	•	34	28	19	Tr	0.2		92	90	•
Hampstead Observatory	450										•		•

Atmospheric Pollution. Milligrams of Solid Impurity per cubic metre.
24 hrs. ended 7h. G.M.T. 31st.

South Kensington			
Max.	Time.	Min.	Time.

Kew Observatory			
Max.	Time.	Min.	Time.
1.2	13h 30th	0.1	6h 31st

FOREIGN OBSERVATIONS.

Stations	18h. G.M.T. 30th December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	7h. G.M.T. 31st December Barom. mb.	Wind Direc.	Wind Force	Weather	Temp. °F.	Past 24 Hours Max. Day °F.	Min. Night °F.	Rainfall Day mm.	Rainfall Night mm.
Paris	1018.2	SE	2	z₀	28	1017.0	-	0	sf	27	*	27	*	-
Brussels														
Berlin														
Zürich														
Rome											•	•		

EXPLANATION OF FIGURES, LETTERS, etc.

COLUMNS 2, 16.
The barometric tendency is expressed in tenths of a millibar.

COLUMNS 4, 18.
The Beaufort Scale of Wind is used only for surface observations. In the accompanying table the speed of the wind corresponding with the different numbers is the speed at about 30 feet above the ground.

Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.	Beaufort No.	Statute m/h.
0	1	4	13–18	9	47–54
1	1–3	5	19–24	10	55–63
2	4–7	6	25–31	11	64–75
3	8–12	7	32–38	12	75
		8	39–46		

COLUMNS 34, 35.
Tr. = rain has fallen, but amount less than 0·1 mm.

COLUMNS 8, 22 —Code for surface visibility.

	Objects not visible at
0 Dense fog	55 yards.
1 Thick fog	220 „
2 Fog	550 „
3 Moderate fog	1,100 „
4 Mist or haze	1½ miles.
5 Poor visibility	2½ „
6 Moderate „	6¼ „
7 Good „	12½ „
8 Very good „	31 „
9 Excellent „	beyond 31m.

COLUMN 30 —Code for State of Sea.

0 Calm. 5 Very rough.
1 Smooth. 6 High.
2 Slight. 7 Very high.
3 Moderate. 8 Precipitous.
4 Rough. 9 Confused.

‡ Maximum and Minimum Temperatures are for the 24 hours ending 8 h. § Sea disturbance reported from Dungeness.

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